AMERICAN RAILROAD JOURNAL,

AND

IRON MANUFACTURER'S AND MINING GAZETTE.

ESTABLISHED 1831.

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PRINCIPAL CONTENTS.

The Western, or Boston and Albany Railroad..705
The Iron Trade.....707
Railway System of Great Britain.....708
Competent Men at a Liberal Compensation....709
Railway Traffic, and the Influence of Reducing Rates in England.....709
On the Balancing of Wheels.....710
Harrisburg, Portsmouth, Mount Joy and Lancaster Railroad Company.....710
High Locomotive Speed—Eight feet Drivers...711
Attica and Buffalo Railroad.....711
Prevention of Collisions on Railways.....712

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PUBLISHED AT 48 S. THIRD ST., PHILADELPHIA.

Saturday, November, 4, 1848.

☞ REMOVAL.

The Office of this Journal is removed from the *Franklin House*, to No. 48 SOUTH THIRD STREET, *third door north* of the *Girard Bank*.

*** A *special request* is hereby made, to those to whom Circulars have been recently addressed, that they will respond promptly to them, as an important question—to us at least—is to be decided in accordance with the response given to the request made in those circulars.

RAILROAD IRON.

THE NEW JERSEY IRON CO.'S WORKS, at Boonton, are now in full operation, and can execute orders for Railroad Bars of any required pattern, equal in quality to any made in this country. Apply to DUDLEY B. FULLER, Ag't
139 Greenwich Street.
New York, October 25, 1848. tf

TO CONTRACTORS.

BURLINGTON AND MOUNT HOLLY RAILROAD.—Sealed proposals will be received by the subscriber until the evening of the 13th of November next, for the Grading, Bridging, and Masonry of the Burlington and Mount Holly Railroad, about seven miles in length.

Plans, profiles, etc., may be seen, and all necessary information obtained of H. L. Southard, at the Engineer's office, in Burlington, after the 10th of November.

The company reserve the right of rejecting all bids deemed incompatible with their interests.

ROBERT S. VAN RENSSELAER.
Burlington, October 39, 1848. 2t45

RAILROAD IRON.

THE TRENTON IRON COMPANY ARE now turning out one thousand tons of rails per month, at their works at Trenton, N. J. They are prepared to enter into contract to furnish rails of any pattern, and of the very best quality, made exclusively from the famous Andover iron. The position of the works, on the Delaware river, the Delaware and Raritan canal, and the Camden and Amboy railroad, enables them to ship rails at all seasons of the year. Apply to

COOPER & HEARTT, Agents,
17 Burling Slip, New York.
October 30th, 1848.

The Western, or Boston and Albany Railroad.

We published in the Journal for October 21st, a letter written in May, 1837, by two of Boston's most eminent merchants, showing the position in which this noble work was then viewed by its most devoted friends, and stockholders, themselves among the number. We also showed the progress of the work up to February, 1839, or nearly two years subsequent to the date of that letter, notwithstanding the discouraging circumstances of the times when it was written; and we now propose to show *how* the means were raised to continue, and extend, operations upon the line, and finally to complete the work to Albany, and thus secure to the people of Massachusetts, and to the city of Boston more especially, a free participation in the business of the New York canals, which in no other way could they obtain.—We were aware that there was, at one time, considerable difficulty in the financial affairs of this company, and much doubt as to their ability to complete the work; but never knew the particulars, until recently in Boston, in conversation with a gentleman whom we knew to have been an efficient actor in the accomplishment of this great enterprise, who read to us a *memoir* prepared in 1842, when the work was completed and in successful operation, setting forth in a very clear and forcible manner the condition of the enterprise in 1837, and the *manner* in which it was carried forward to completion.

After having listened with deep interest to the reading of this interesting document—and asked numerous questions in relation to the subject—we asked of the writer the privilege of publishing it for the benefit of other companies, and other communities, which are now, or may be hereafter, placed in similar circumstances. He said that it was not *designed* for publication, but was prepared for a specific purpose, to which it had been, though unsuccessfully, applied; and that he had only read it to me in answer to my inquiries for information in relation to the early history of the Western railroad; yet, if we thought it useful to the cause, he had no objection, and thus it is that we are now allowed to add this interesting chapter to others in the Journal for future reference, when the history of our American railroads shall be written. We give it entire, and in the language of the writer, which is often energetic and eloquent, and always clear and forcible. It shows what *may be accomplished*, in a good cause, by good judgment, tact, and indomitable perseverance; and the importance of first deciding what is *necessary* to accomplish the object in view, and of then asking for all that is needed, and adhering resolutely to the point; and yielding *never* until the end is attained.

The memoir was addressed to a committee of the board of directors, and is as follows, viz:

[No. 1.]

Messrs. JOHN W. LINCOLN, ABM. T. LOW, and JOSIAH QUINCY, Jr., } *Committee.*

Boston, September 27, 1842.

Gentlemen: Previous to the loan of the credit of the state, in 1838, the Western railroad was in progress from Worcester towards Springfield.

January 1, 1838, 27 miles only were fully graded, ready for the superstructure, and the grading was going on (with reduced force) for the whole unfinished distance, between Springfield and Worcester, except two miles adjoining Connecticut river.

West of Connecticut river, the surveys had been made, and the whole was ready to be put under contract.

Only $20 per share had been assessed on the stockholders.

Propositions were seriously entertained and made, of arresting the work entirely, and abandoning the enterprise, and dissolving the corporation, for fear of its power to lay further assessments. Many of the stockholders were selling out and giving away their stock, to men of weaker purse.

In their brief statement of facts, dated 15th January, 1848, for the use of the legislature, the directors state that "*without further aid from the legislature they must order the work to be discontinued in February* 1838, thereby incurring great damages to contractors, and to the farms and sections of country thro' which the road passes."

"If the work is entirely abandoned (says this statement) there will be a loss to the individual stockholders of $400,000, and to the state, (as a stockholder) of $200,000.

"The character of the state will suffer deeply, and our citizens be discouraged from attempting hereafter any great public work."

From November, 1836, to May 11, 1837, (the day of suspending specie payments in Boston) money ranged from 1½ to 3 per cent per month. It became apparent that the corporation could not lay and collect assessments, to carry on the work. To carry on the work, it became necessary to invent some mode, out of the common course, whereby the money could be borrowed at a reasonable rate. It became necessary to invent the mode, and then to cause its adoption by the stockholders, by the directors, by the people of the commonwealth, by the legislature. Such was the problem to be solved.—The solution of this problem was, with me, a subject of deep reflection. To borrow the money at home, even if practicable at all, on the credit of the corporation, could only be done at ruinous rates. I looked at the subject in all its bearings; and finally, in July, 1837, I resolved to place the comparatively low price of money in London, within the reach of the Western railroad, by obtaining from the state the loan of its stock, payable in London in 30 years, to an amount making up its whole capital, viz: $2,-400,000. I so resolved, after convincing myself that the interest and the honor of the stockholders, the honor of the State and the public interest would be eminently subserved by this being done. I then cast about, for associates in this enterprise of obtaining the loan. Every one, almost, whom I consulted, inclined to the belief that this measure would promote the public good; but deeming success impracticable refused to join in the attempt, and threw an icicle in my path. The remarks of the president of the road were peculiarly encouraging. At last, after two months trying in vain, I found one man (Thos. R. Sewall) who thought there might be a possibility of success, and he agreed to try. I then felt strong.—Mr. Sewall, at my request, brought to my house a friend of his (Henry Sterns, of Springfield) and there was held (with the imposing form of having Henry Sterns chairman, and Thomas R. Sewall secretary) a meeting of *three* persons in all; being the first of that series of meetings which produced success. In this meeting, Sterns said that (before he would embark) he desired to consult a friend he named; and if this friend thought it would do, he would then enlist. From the discouraging replies previously given to me, by hundreds of persons, I thought Sterns would of course get an answer fatal to his enlisting—and although this was the first time I had ever seen Sterns, and although he was under my roof, I replied with great warmth, that "if instead of consulting *his own* sense of what the state was bound to do, by its own honor and its own interest—and if instead of abiding by his own compass, he was willing to veer about, by the compass of other persons—he was not the man for me; and we must move without him: because the only way which could ensure success, was for each one that enlisted to become convinced for himself that that this was a proper measure, and then to pursue it, even if all the world seemed to be of an adverse opinion." I then gave him, from my own experience, instances of success of the policy I recommended: aye, of striking success, in despite of very discouraging circumstances, and in despite of the opinion of every man when first asked. He stared, looked amazed, paused, and finally agreed to move on his own opinion. Soon after this, we received the very valuable acquisition of Wm. Savage, John Henshaw, Francis Jackson, and many others. Meeting after meeting was held at my house, taking care to add but few new members to each caucus meeting, and to have at each meeting some new and good reason given for our plan. A request was made to the president to call a meeting of the stockholders, to propose to them our plan. This request was refused. Meanwhile, our caucus meetings grew stronger and stronger. More and more patriotic and talented men came to them. We moulded, more and more, public opinion. We convinced. We inspired enthusiasm, and finally succeeded in procuring the signatures of stockholders holding a sufficient number of shares, to make it imperative on the clerk to call the meeting. The clerk notified the meeting accordingly for the 23d Nov., 1837. At this meeting, an address to the people, prepared by me, under the revising care of several of our previous caucus meetings, was adopted, and ordered to be distributed to the governor, lieut. governor, counsellors, senators, and members of the house of representatives, and to the stockholders; and a sufficient number of extra copies were printed to diffuse throughout the public the reasons presented in the address for the consideration of the people of Massachusetts.

Our very numerous caucus meetings had reared so many monitorial teachers, that every member of the legislature, in the natural course of his walks, found either previous to his arrival, or on his arrival at Boston, in January, 1838, some friend, in whom he had confidence, ready to explain and to demonstrate the advantages of the loan. Nor was this done in the dark. It was a plan of campaign frankly avowed, in the public, as well as private, caucusses. It was avowed in the public caucusses, which the members of the legislature were invited to attend once a week, during the whole session.—The plan of campaign was openly avowed to be an unremitted attention, to throw the clearest possible light on this great subject; and at every one of our meetings, the researches of the inventor of the loan enabled him to present some new reason in favor of the plan proposed.

Thus was a correct public opinion of the masses formed—a public opinion founded on conviction of the public good which this measure would produce; a public opinion which impelled the whig leaders to move for the loan; a public opinion which inclined the opposite party to fight against it rather a shambattle, furnishing us even some of our best soldiers.

The idea, in this campaign, of convincing the masses, was my own, and was characteristically different from the usual plan of looking to the leaders to carry the measure. Had we looked to the leaders, instead of taking the needful pains to convince the masses, we should have failed; *because* in the then state of parties, it was too bold a measure for the leaders to dare to attempt to carry. They thought it was too great a risk to take, either for themselves or for their party. Besides, in a house, such as it was, impatient in prolonged debate, it would have been impossible to occupy the attention of the house for a length of time sufficient to make the house thoroughly understand this new science; and if they did not understand it, they would of course very properly vote against the loan.

The best documents of reasonable length, which could be procured, elucidating the subject, were printed and distributed to the members of the legislature, and to the people generally.

That mighty engine, the public press, was very early taken care of, by inviting its conductors, and their friends to partake in our deliberations; and at the proper time, the aid of the press was not found wanting, among the various parties. They that could not agree in religion, in politics, or in the 15-gallon law, mingled in common praise of the Western railroad. Men engaged in other projects, before the legislature, have frequently wondered how it was that we could thus make the press come out, even editorially, at the right time, and in the right way. My answer has been "that we did it by taking the trouble, in early season, and with unwearied industry, to *convince* the editors that the adoption of our plans would eminently subserve the public good."

The Erie canal act, after being a subject of discussion for very many years, passed by a majority of one single vote. The large majority, by which the Western railroad loan of $2,100,000 was enacted, within eight months after it was found so very difficult to get even one individual to join in the campaign, sufficiently attests the goodness of our cause, the soundness of its first conception, and the untiring industry, and clearness of explanation, applied to convince the members. It does great honor to those members, who were willing to listen, and to be convinced, by patient investigation, of the merits of this new science; to be convinced of the commanding claims of this new project upon all patriotic citizens.

Thus it is, that this Western railroad loan, by me invented, just at the nick of time, and carried by debate, out of the house, saved the road. I would not be understood as unconscious of the highly meritorious exertions of the present president of the company, of the treasurer, and of other gentlemen, in carrying the measure. But none of them bring to it the claim of being the first inventor of this loan; the claim of the first resolve to carry the measure, just at the nick of time; the claim of centralizing, and combining, the various elements of success; and the claim to have settled, as a fixed plan, the convincing of the masses of men, and of each individual member. Without the first resolve, adopted just when it was, the bill for the loan would have had no birth; and without the unshrinking and unceasing vigilance, which I applied to it, unflinchingly, as to not reducing the sum below $2,100,000, the loan would have been frittered down to the insignificant sum of $300,000—or would (as was seriously proposed to me) have degenerated into a complimentary report, referred over (with our consent) to the next general court.

By this systematic attention to convincing the members of the legislature, we were enabled to judge pretty accurately, of the yeas and nays beforehand; so as to know when the proper time had arrived for our friends to push the measure. The vote of each member, resting on demonstration, as does a problem in Euclid, assumed its certainty. We knew that he who was convinced that we were right, would vote for the bill; and we knew this, while the so called leaders of the house were yet unconscious of it. And there was nothing secret, or dark, or mysterious, in this our mode of action; for we avowed our unshrinking determination to explain all, in the clearest manner, to every member of the two houses, and indeed to every member of the community; and whenever fault was found that we did throw this light, we replied "that we felt proud of

it; that, having a good cause, victory was ours, if that cause was clearly explained."

In the first conception of the loan, and during the intense labor of every kind to carry it to success, it was natural for the inventor of the loan to suppose that the care of selling the stock, created by his invention, would be confided to him with a very liberal commission. Of its being so confided, the inventor had no doubt. He was much surprised that this was not done; especially as the stock was known to be in his line of business. The unceremonious way in which the votes of the stockholders, regarding his individual interest, were laid on the table by the directors, and the long sleep of these votes on the table of the directors, will now, it is to be hoped, lead to prompt action and to full justice. Better late than never—*even though better never late.* More would have been said by the inventor, at a time earlier than the present, if he had not prefered keeping a single eye to the great purpose of finishing the road, postponing the more intense consideration of his individual interest, until the road was snugly moored in a harbor of safety. It is not, indeed, until the end is attained, that we can best judge of the productive value of the measure, and of the mental labors producing that end. Without those labors, that end, now so gloriously within our grasp, would still be seen only in distant and unknown futurity.

The treasurer will doubtless testify that the inventor of this loan of $2,100,000, and of the subsequent loans of $1,300,000 and $700,000, has not for a moment abandoned the object of causing these loans, (so far as in his power) to bring the greatest price; and that he has accurately foretold to the treasurer, for the benefit of the corporation, in ample time to avail of it, and on more than one important occasion —aye, accurately foretold, long beforehand, what was to happen in the money market, both in England and in this country.

The treasurer will also testify that the movements, combinations and arrangements of the inventor of the loans, in relation to the stock of the road itself, have, at very great risk of heavy loss to the inventor, sustained the stock in many a dark and dismal hour, and have kept up the courage of the most desponding, at the moments most critical to the fate of the road; and let him also testify, if he will, what he thinks would have happened to the road, had not all these unshrinking exertions been made, by the individual in question!

The treasurer will testify to the value of the services of this individual, on the various trying occasions of entirely unexpected and most unpalatable assessments.

The situation of the road, just before the loan of $2,100,000, may be likened to the situation of a ship abandoned at sea to the mercy of the waves. The inventor of the loan is the salvor. At great peril of his own fortune, and at great loss of time, and at the risk of being called a madman (which is not a very profitable nickname for a business man) and well-knowing that he was so called by some of the gentlemen who had the direction of the road—the salvor undertakes to save the ship, and does save her, and bring her into port. The court of admiralty will not inquire whether the salvor made a bargain.—They will award him a fair, a liberal portion of the property saved: this proportion being fixed according to the circumstances of the case; and they will award this, not by the laws of any particular country, but by the law of the world, founded on the sense of justice, written by the imprint of the Almighty's hand, in the hearts of all mankind.

If the inquiry be raised, "why was not a bargain made, beforehand, by the inventor of the loan, for his services?" the answer is, that the directors, (in common with the whole community) considered the project Quixotic, and, of course, unworthy of their countenance or patronage: and that they could not be made to budge one inch, untill impelled to move by the irresistible force which the plan had already acquired with the stockholders and the public;—a force resulting from the discussions elicited in upwards of 30 caucusses, public and private. To borrow the expression of a friend, "the directors thought they were made fools of, by being pushed to advocate a scheme entirely impracticable."

Had the directors of the Western railroad believed, when the loan was first proposed to them by the inventor, that it had a fair chance of success, if conducted by that inventor, and had they imagined, beforehand, the tact and labor he would bestow—it would have been their duty to enlist the services of that inventor, and they would not have offered him less than the expenses, and "5 per cent. commission on the amount of loan, payable in case the law was passed." It can be established, beyond a doubt, that a greater compensation than this has been paid for loans, by many a corporation, while in circumstances less critical than those in which the Western railroad was then placed. The inventor holds himself in readiness to take whatever compensation arbitrators will decide as the compensation which would have been agreed on, if an agreement had been made.

But no agreement was made, and for why?—because the directors thought it a Quixotic scheme; and this is said without disrespect to the directors. The whole community, (until instructed by the monitorial schools) were of the same opinion.

The question for consideration then is,

1st. Would it have been for the interest of the road, for the inventor to abandon the scheme, because he could make no bargain beforehand? To this the ready answer is, no! Public opinion says that without the loan, the road would have been defunct.

2d. Is less compensation due to the inventor, in consequence of making no bargain? There certainly cannot be less compensation due, because the service was indispensable to the life of the road, and could not be performed at all, in season to save the road, if a bargain with the directors had been considered as an indispensable pre-requisite to action in the loan.

If a distinction be attempted, between the directors elected by the state, and those elected by the private stockholders, the answer is, that, once elected, no distinction is known to the law. And besides, "as a stockholder," the state has been as much benefited, by the invention of the loan, as the private stockholders: and in addition to this, the additional value given to the property of the citizens of this commonwealth, by the existence of the road is very large. The existence of the Erie canal, in ten years doubled the value of the property in the state of New York, which had not increased in value during the preceding 10 years. By this rule, the railroad will add $300,000,000 in 10 years to the value of the property of Massachusetts. If then a distinction be made, it will be to decide that, by the invention of the loans, and the labors of obtaining them, the state has been benefitted to a vastly larger amount than the stockholders. And again, the reputation of the state stands proudly erect, with the Western railroad finished. Alas! where would that reputation be, with a road half finished to Springfield?

(To be continued.)

The Iron Trade.

This branch of industry is apparently almost as much depressed in England as in this country, yet their low rates of labor, and prostration of all rivalry in the business, enables them to keep their mills in operation.

The London quotations of September 22d are, for

Welch cold blast foundry pig	£3 10 to £4
Scotch pig, Clyde	2 5 2 6
Railway chairs, average	4
Rails, "	6
Merchant bars	7 10 8

Fortunate were those American manufacturers who got contracts to keep their mills in operation during this and the ensuing year—or every mill making rails would have been stopped before this date. *So much* for the promulgation and *belief* of a *falsehood* in Pennsylvania by political *demagogues*—in 1844! Will the same men attempt a similar movement for the same purpose this year? We shall see.

The following remarks from the Wolverhampton Chronicle of 22d September, show that this important branch of business was then in a very depressed condition, in all the iron districts.

The effect of the late settled weather on the iron trade has been to cause some houses who, notwithstanding the low nominal prices, have been selling considerably under them, to approximate nearer to the fixed prices, but beyond this no advance that we can learn of has either been made or is contemplated.—Orders from the continent at this period of the year must be limited, and cannot affect the trade, as the shipments cease from October, owing to the ports being closed by frost for the winter. It is more than probable that upon the opening of the ports in the spring, a considerable demand for the continent will arrive, if political affairs should become more settled. In some branches of the trade, affecting the forges and mills, there is a large demand, but in others orders are exceedingly scarce; and while such a state exists, any attempt at advancing prices would not be wise. The makers of pig iron are naturally justified in attempting to resume their former position with regard to the makers of merchant or manufactured iron. Owing to the blast furnaces continuing to work during the two months' strike of the forgemen in the early part of this year, the stock of pig iron accumulated, causing a slight depression in this branch of the trade for a time. That stock is now, however, reduced to a moderate extent, and the makers of pig iron are now in position to ask their fair proportionate prices. Some heavy contracts have, we understand, already been made for next quarter, at £3 2s. 6d. to £3 10s., bars being presumed to be £6 10s.

The wages of forge and millmen cannot now be considered open to dispute. It is admitted that, according to the present price of iron, wages bear a fair proportion to the price of the manufactured article. The great bulk of the men agreed to work at the recent reduction without a strike, only a few workmen in the neighborhood of West Bromwich resisting the reduction for a time. Seeing, however, shortly after, the unreasonableness of their resistance, they also commenced work on the masters' terms. Some uneasiness ex-

ists, we are sorry to notice, among the miners of this district, arising out of the exaggerated and incorrect reports which find their way somehow or other to the public press, and also from the circulation of handbills, either founded on mistatements or misconceptions, among the men. At present, and as long as present prices alone can be obtained, employers, it is clear, are not in a position to advance wages, nor can it be thought that workmen will act wisely in demanding a rise. Should the anticipations of those intimately acquainted with the trade be realised, at the commencement of next year better prices may be expected, and a proportionate advance of wages honestly required.

The pig iron trade of Scotland has received a slight impetus from a large contract of pipes for Liverpool—it is said to be 40,000 tons—having recently been taken at Glasgow; but the extremely low price at which the contract was accepted, is a proof that the Scotch manufacturers are not sanguine as to the state of the trade. The manufactured, or malleable iron trade in Scotland is, we understand, at a very low ebb; the very inferior quality of the iron obliging the makers to take very low prices.

In Wales also the demand for bar iron is not brisk. Orders for rails may be obtained in moderate quantities for low prices; but not to the extent that might at first sight be expected from the resuption of operations on new lines of railway: the rails for most of these lines having been purchased long age, and in many instances lying in the hands of the manufacturers, ready for delivery the moment the companies are in a position to pay for them. Upon the whole, although we see no reason to doubt that the iron trade may have assumed an improved condition, and that orders, at present prices, to some extent, may be expected, still we would recommend great caution as to making any advance in price, and as a matter of couse any increase of expense in workmanship. The ruling price, like the ruling price of all other articles, when a money pressure exists, is scarcely remunerative either to master or man.—Both suffer; the one in profits, the other in wages, but cecession of trade is not the remedy At the one instant, when trade stops, the masters' capital and machinery is as nothing in the world, and the workman's time and skill as nothing also. Adventitious circumstances may modify these principles, but they are true as the truth can be.

Railway System of Great Britain.

The following statement in relation to the extension of railways in Great Britain is taken from a paper prepared by *Wyndam Harding, Esq.*—one of the ablest writers upon the railway system, because he is an intelligent *practical* man, who has had great experience, and therefore gives facts within his own knowledge instead of anticipations of favorable, or apprehensions of unfavorable, results from the adoption of a *theory*, however plausible.

The quotation from the *Quarterly Review* in 1825 is well-timed and appropriate, as there are many who think themselves intelligent men at the present day, hardly aware that the railway system is their *junior*. The paragraph here quoted was published at about the period when the *Liverpool and Manchester* railway began to be "*licked into shape*"—as it was in October of that year that its promoters took a small office in Liverpool in which to hold their consultations; and even three years and a half later *five tons* was the maximum weight allowed to be given to a locomotive, *if one could be constructed*—of which many wise men doubted,

We divide the article of Mr. Harding, and make two of it, preferring—though not thereby improving it—to make a separate article of that part relating to *traffic*. The title of the paper alluded to, is

Facts bearing on the progress of the Railway System, by Mr. Wyndam Harding.

The modern railway system of Europe, may be said to date from 1830, when the construction by the English engineer, Mr. Geo. Stephenson of the Liverpool and Manchester railway, with its locomotive engines, was completed. After that date we heard no more of such prophecies as the following, (from the *Quarterly Review* in 1825) which it is not useless to record as a lesson of caution to us for the future:

"As to those persons who speulate on making railways generally throughout the kingdom, and superseding all the canals, all the wagons, mails and stagecoaches, postchaises, and, in short, every other mode of conveyance by land and by water, we deem them and their visionary schemes, unworthy of notice. What, for instance, can be more *palpably absurd aed ridiculous* than the following paragraph"—in which a prospect is held out of locomotives travelling twicc as fast as stage coaches. "We should as soon," adds the reviewer, "expect the people of Woolwich to suffer themselves to be fired off in one of Congreve's ricochet rockets as trust themselves to the mercy of such a machine, going at such a rate."

The modern railway system has however not only done this, but it has given rise to new habits in the present generation, and has proved to be the great mechanical invention of the nineteenth century, as the steam engine was of the eighteenth century. As it is still in its infancy, it is especially the province of statistical inquiry to watch its growth, so that on the one hand timely remedies may be applied to its defects, and on the other that free scope may be given to its beneficial tendencies. Valuable papers have been contributed by Messrs. Laing, Porter, Graham and others, analysing the traffic on railways during the infancy of the system in the year 1843 Shortly before that period there had been a pause in railways. During two years only five miles had been sanctioned, but the period which has since elapsed comprises the memorable mania years of 1845 and 1846. Under this excitement intelligence and emulation have been stimulated among the managers of railways to the utmost, and the system has rapidly advanced. The consolidation of lines under a few great companies, by the process styled amalgamation, has proceeded; the atmospheric, an entirely new system of traction, has been brought forward; the electric telegraph, conveying intelligence at the rate of 280,000 miles a second, has been widely introduced; express trains, travelling at nearly the highest attainable speeds, have been established; and the length of railways in operation has been doubled. It therefore becomes a matter of much interest to enquire to what the results of so active a period point. Have low fares answered? Has the third class traffic, the most important to the bulk of the people, been encouraged, and has it been found wise, not only for the users, but for the owners of railways, to enourage it or the reverse? Has the increase of speed been successful, and are we likely to travel faster or slower hereafter? How have the receipts kept up while the length of railway has been doubled? Did the first 2,000 miles get the cream of the traffic, as has often been thought and has the average receipt per mile consequently fallen off? Should the experience of the past, in short, give us confidence in urging on the system at the extraordinary rate at which we are now doing it, or not?

In the following investigation and collection of facts it has been attempted to throw some light upon these points; the recent publication of the official railway returns for 1846 and 1847 affording peculiar facilities for the purpose.*

The following paper refers to English, Scotch and Welsh lines only; the Irish lines are excluded. the economical condition of Ireland being different from that of this country, and there being but few railways open in that country:

Comparative lengths of railways open in 1843 *and* 1847, *and receipts therefrom.*

† The lengths of English, Scotch and Welsh railways open June, 1843, were 1,990

‡ Ditto, open at the commencement of 1848 3,597

§ The gross receipts returned for the year 1842 were . . £4,740,000

‖ Ditto for the year ending June 30, 1847, . . . 8,326,772

After making the necessary corrections in the above figures, the average receipts per mile of railways in 1842 were £2,489; in 1847, £2,596. We therefore arrive at the important fact that, although the mileage of our lines has been doubled, the receipts have been more than doubled. This must be regarded as a very favorable general feature in the state of railways. There was much reason to fear that, as the first railways ran between the great towns or traversed the manufacturing districts, the railways which were next opened would show a great falling off in receipts. Hitherto, then, we find that this is not so: a fact which may give us confidence as regards the great length of railway which has been sanctioned by parliament but which is not open.

* I have to acknowledge many obligations to those who, having gone over parts of the field before, have helped to reduce the mass of figures with which we have to deal into shape. References to the sources of information are subjoined.

† Mr. Laing's paper, 1844, p. 5, appended to the fifth report from the select commitee of railways, 1844, 115, 2.

‡ Report of the railway commissioners, 1840, p. 11, after correction for lines opened in 1847.

§ Mr. Lang's paper, 1844, p. 7.

‖ Railway commissioners' return, 1846-7.

Lines sanctioned, but not opened.—The length of railway sanctioned by parliament at the commencement of 1848, but not then open, was 7,150 miles.* A considerable portion of this is in progress, more or less rapid. On the 1st of May, 1847, 5,209 miles were returned † as in progress, on which 218,792 persons were employed, or 42 per mile.‡—These new railways are principally designed for the accommodation of the aggricultural parts of the country. We will presently refer to the prospects of railways in such districts. When the railways now in contemplation are completed, and it is probable that a greater portion will be so in the course of the next five years, we shall have upwards of 10,000 miles of railway open; on which, judging from the numbers employed on lines now open,† viz: 14 per mile, 140,000 persons will be permanently employed, at good wages—representing, at 5 to a family, three quarters of a million of the gross population. The importance of this addition to our internal communications will be appreciated when it is remembered that there are only about 4,000 miles of inland navigation, and 30,000 miles of turnpike road, open for traffic in the country.

We recommend these articles to our readers as deserving their attention.

Competent Men at a Liberal Compensation.

We extract the following remarks, in which we fully coincide, from an article in the Railway Chronicle, entitled "*Heads of a System of Practical Reform, No.* 5;" and commend them to our American managers of railways, as eminently true and appropriate. The writer says:

Among such minor savings as we have pointed at, we shall take the earliest occasion to say, we do *not* mean to count reductions of wages, in whatever part of a railway establishment. The best economy, in a business like this, is to pay such wages or salaries to men fit for the business, as will make good men study to deserve their places, and fear to lose them by any default in their duties.—The matter of consequence here is not so much the sum paid as the kind of service got for the payment; the evil to be guarded against is far more the admission, whether through carelessness or misuse of patronage, of unqualified servants, than the price which may be given for good ones. If directors and heads of departments are honestly studious, in all appointments, of the one thing needful, and so feel one of their chief duties as to make fitness and merit the sole object regarded in filling up places, there is no fear of the company's revenue suffering by the payment of such wages as will invite and retain fit and meritorious servants. The incompetent are dear at any price whatever; the money laid out on faithful and efficient service is sure to be returned to the employer in a hundred ways. In this department, we trust, therefore, that economising committees will not fall into an error common enough in other quarters, by making reductions inconsiderable in themselves, although serious enough to those who occupy the lower places in the working scale; but it will rather turn their attention to the best method of ascertaining that the company receives value for the wages paid—of preventing favoritism or jobbing, of whatever kind, from depriving the company of this value, by quartering incapabilities upon its funds. This, and not the diminution of wages, is the main thing to be studied here.

* Porter's Progress of the Nation.

† Parliamrntary returns of the House of Commons, 1847, 579.

‡ In this return the number of miles returned as in progress are more than those really in construction, the number of men employed per mile is less than the truth.

Railway Traffic, and Influence of Reducing Rates in England.

With many very intelligent men in this country, directors as well as shareholders, it is still an unsettled question whether high or low rates of charge will give *best returns* on our American railroads.—Indeed, within a few days past, we had a conversation with a very intelligent, and highly honorable, gentleman, connected with one of the companies between this city and New York—not, however, connected with the oppressive monopoly to which we have so frequently referred of late, except in being compelled to yield to their dictation in relation to the $4 through ticket—who does not fully admit the truth of the *theory*, though obliged to yield to the practice, of reasonably low fares, for their *way* travel. There are some lines in the States, north of Mason and Dixon's line, we admit, and most of those south of it, which may not, owing to *local* causes, be *equally* benefitted by low fares, and because the people *are not there* to travel, and to produce *freight*; and yet, even on these lines, we must still believe that like *influences* produce like *results*, and that *inducements held out* to the people to travel, and to send the produce of their labor, will not only increase both, but also *increase the population*, and thus enhance the value of the property, and of course increase business at a steady rate; while high rates not only prevent travel, but also retard the increase of population, and prevent a legitimate rise in value of property; while on important lines, emanating from, or connecting large cities, where there are both people and property to be transported, if the rates will warrant it, the true poliry is, in our estimation, to put the rates so low as to draw out passengers by *thousands*, instead of *hundreds*; and enable them to carry to market articles of utility and convenience, though of small cost, and thus derive an income from sources heretofore not available from cost of transportation; and also to enable them to have a *choice* of markets in the large cities thus connected by railroads.

The following analysis of the English railway traffic, for the year ending June 30, 1847, will be found both interesting and useful—interesting, as exhibiting a large increase of railroads, and proportionate increase of business; and useful, in showing that, as the resources of the country are developed by railways, the proportion of receipts from *freight* increases; thus showing also an increase in the value of *property*, as well as of the comforts and conveniences to the people. It is as follows, viz:

ANALYSIS OF TRAFFIC.

General Features.—The gross traffic for the year ending June 30th, 1847, was, as we have seen, £8,366,000. There were conveyed during that year, from the returns of the board of trade,* in round numbers, 7,000,000 tons of merchandise and goods, 8,000,000 tons of coal, 59,000 horned cattle, 1,500,000 sheep, and 100,000 horses.

Of the gross sum, £8,366,000, the passenger receipts were, . . . £5,024,000

The receipts from all other sources —goods, cattle, carriages, parcels, mails, etc., . . 3,342,000

8,366,000

In every £100 of receipts, the passenger traffic therefore forms 60 per cent., the traffic receipts from other sources 40. In 1842 the proportions were as 64 to 36. The proportions of traffic receipts from other sources than passengers, being principally goods and cattle traffic, have thus increased since 1842 as 40 to 36, or 11 per cent. The total number of passengers carried in the year, ending June 30th, 1847, was 47,484,134,† as compared with, in 1842, 22,403,478.‡ The average distance travelled by each passenger was, in 1842, 13 miles; in 1847, it was 16 miles. The numbers and proportions of classes were

	In 1847.	In 1842.
First class,	14·2	20·2
Second class,	38·3	45·4
Third class,	47·5	37·5

Thus the third class passengers, which have increased in numbers since 1842, from 6,000,000 annually to 21,000,000, now form nearly one half of the whole number travelling, whereas in 1842 they formed only one third. Only one third of the third class passengers availed themselves of the parliamentary trains arbitrartly, and, as it appears to me, unfairly, imposed upon railway companies in 1844. The following table, comparing the fares of the metropolitan railways in the year ending June, 1843, with those in the year ending June, 1837, shows the great reduction which has taken place in fares during the last four years. To make the comparison more appreciable, the fares are taken as for 100 miles in pence.

	Fare for 100 miles.					
	1st class.		2d class.		3d class.	
	1843.	1847.	1843.	1847.	1843.	1847.
Lond. & N. West.	334·8	218·1	241·1	144·6	131·2	93·3
Great Western...	303·1	274·4	208·5	187·8	118·3	100·0
Lond. & S. West.	312·0	245·0	210·0	168·0	120·0	96·0
Eastern Counties.	291·1	210·0	227·4	141·5	164·7	92·3
Northern & East.	217·4	.....	165·1	.....	110·9	.....
South Eastern....	227·0	214·0	150·0	152·0	87·5	90·0
Lond. & Brighton	350·0	263·0	225·0	171·0	150·0	109·0
Average.....	303·5	237·4	210·3	160·8	128·6	96·7
Difference per ct.	.....	21·8	.....	33·8	.....	25·0

This reduction in fares, coupled with the increase in the number of trains, and the speed of travelling, must be regarded as the principal cause of the great increase of the number of passengers since 1843.

We have already seen that the numbers in 1846 and 1843, 47,484,134 to 22,403,478.—If we take into account the number of miles opened at those dates respectively, the annual number per mile was, in 1842, 11,772, and in 1847, 14,806.

* These returns are not complete, and they require some correction, in respect to the same article being sometimes conveyed over several different lines, and therefore counted over more than once.

† Railway commissioners' return, 1848.

‡ Mr. Lang's paper, 1844, p. 11.

On the Balancing of Wheels.

At a meeting of the Institution of Mechanical Engineers on the 13th of June, Mr. M'Connel read a paper on this subject, which appeared to meet with general approbation—and it may be both interesting and useful to our readers—therefore we give it a place in the Journal.

On the Balancing of Wheels.—Mr. Mc Connell read the following interesting paper on this subject:

The paper treated on the balancing of wheels as a very important matter, as most of the accidents from carriages jumping off the line, had arisen from the balance in the wheels of the engine. The first who made this matter of practical observation was Mr. Geo. Heaton, of Birmingham, on examining a lathe in the turning rooms of Earl Craven, the pulley of which he found to be out of balance. This he remedied, and the lathe worked well again. Mr. M'Connell instanced several railway accidents of late, which had arisen from a want of proper balance in the wheels of the engine. He then proceeded to illustrate the usual method of balancing the wheels of locomotive engines, which he considered an improper one, and on reference to experiments with another model, pointed out the desirability of obtaining an accurate balance in the piston and piston rod.

In the course of the paper Mr. M'Connell exhibited various experiments with a model railway carriage, explanatory and illustrative of the statements advanced in the above paper. The first experiment was made with wheels in balance, the motion to which was given by a spring, and the sustained regularity of the motion was unexcepiionable. In the second experimeut, a small piece of iron was inserted in the wheels, and the balance consequently destroyed, the natural tendency being to cause a jumping and jerking motion to obviate which was the object sought in this contrivanco. Similar experiments were made to show the necessity of adopting a similar system of balancing the piston and piston rods in order to obviate this same jumping motion.

In explanation, Mr. M'Connell said that the wheels could be properly balanced together. First, one wheel was balanced, and then the put they other wheel on upon the other side of the engine, and balanced it in the same manner. When the matter was first placed before Mr. Robert Stephenson, that gentleman considered it of no service, and it met with much opposition; but since that time Mr. Siephenson and many other gentlemen had adopted a plan of balancing their wheels, which, in his opinion, was not the correct one. When a locomotive engine was connected, and the driving wheels and working part attached, it was lifted up upon centres, and set slowly in motion, baiance being added until it moved at a certain speed without oscillating, and it became perfectly settled on its centres. That plan might answer tolerably well, but it was the really true mode of balancing wheels. He considered that great evil resulted from the piston and piston rod not being in balance; it had been the cause of accidents in several cases where the engine did not leave the rails when the wheels were in balance. If the engine attained a certain velocity—the piston rod moving 1,000 feet per minute—this momentum became so great, that the engine must jump; and the front wheels were, in some instances, clear of the road, and they could see between the wheel and the rail. They had an engine at Wolverton, fitted up with those correcting weights, and it had been tried for the first time that morning on blocks. The engine at a certain speed on blocks, threw itself down, and they were not able to run it so fast as might be wished; but, on attaching the balance weight, the motion of the engine was completely neutralised.

Mr. Middleton said that this appeared to be the system of balancing wheels, which had been introduced to the notice of the North Western railway, some years ago, by Mr. George Heaton, and againsi which hitherto there had been much prejudice. He felt convinced that it was one of the best methods ever suggested for securing the safety of the public, when travelling on railways, and a great many accidents might be obviated by the adoption of this, or some similar plan of balancing the wheels of engines and carriages. It was supposed that the North Western line had disapproved of Mr. Heaton's plan, but he was happy to find that there was now some probability of Mr. Heaton reaping the reward of his industry by the use of his patent.

Mr. Cowper said, that a system of balancing wheels was used by the Eastern counties company 11 years ago: but this was a decidedly superior plan to any he had ever witnessed, and in many respects superior to the plan he had seen of Mr. Heaton's.

Mr. M'Connell said that Mr. Robt. Stephenson had expressed his entire approval of the utility of the proposed mode of balancing wheels, and had already given orders for it to be attached to an engine he was now constructing.

Harrisburg, Portsmouth Mountjoy and Lancaster R. R. Co.

At the annual meeting of the stockholders of the Harrisburg, Portsmouth, Mountjoy and Lancaster railroad company, held on Friday, the 1st day of September, 1848, Wm. W. Longstreth was called to the chair, and Samuel Hood appointed secretary of the meeting. The chairman read the following notice:

OFFICE H., P., M. & L. R. R. Co.
Philadelphia, 11th Aug., 1848.

The annual meeting of the stockholders of this company will be held at the company's office, (room No, 16, Philadelphia Exchange) on Friday, the 1st September, at 11 o'clock A. M., at which time an election for thirteen directors will take place, to serve for the ensuing year.

VAL. HOLMES, *Secretary.*

The President of the Board of Directors presented the annual report of the board for the year ending the 31st day of August, 1848, which being read by him, the following resolutions were, on motion of Wm. V. Pettit, adopted.

Resolved, That the report of the board of directors made at this meeting to the stockholders, be approved and adopted.

Resolved, That the Act of Assembly of the Commonwealth of Pennsylvania, passed the 16th day of March, 1848, entitled, "An Act relative to the Harrisburg, Portsmouth, Mountjoy and Lancaster railroad company," and the supplement thereto, passed the 7th day of April, 1848, be and the same are hereby accepted.

On motion, *Resolved*, That the board be requested to cause the usual number of copies of the annual report of the board to be published for distribution among the stockholders.

The meeting then adjourned to go into an election for directors for the year ending the 31st day of August, 1849.

WM. W. LONGSTRETH, *Chairman.*
SAMUEL HOOD, *Secretary.*

The judges reported the following persons duly elected directors of the company for the year beginning the 1st day of September 1848 and ending the 31st day of August, 1849, viz:

Joseph Yeager,	J. N. Lane, (Lanc.)
Seth Craig,	Robert Allen,
William Ford,	Dr. John Holmes,
Algernon S. Roberts,	David Lapsley,
Francis R. Wharton,	George Taber,
H. Buehler (Harrisb)	Robert V. Massey,

Wm. W. Longstreth.

REPORT.

The board of directors of the Harrisburg, Portsmouth, Mountjoy and Lancaster railroad company, respectfully submit to the stockholders their annual report, showing the condition of the affairs of the company on the 1st day of September, 1848, together with tabular statements of their business for the past fiscal year.

In reference to the business of the road, the stockholders have every reason to be proud of the result. Whilst it will be seen that the revenue for the last twelve months is much larger, the general expenses have considerably decreased.

It will be seen by the statements and tables annexed, that the whole receipts for the year ending September 1st, 1848, have been as follows, viz:

From passengers	$80,900 24
freight	31,284 12
extra freight	772 68
mails	6,300 00
rents	2,093 40
sale of old materials and engines	4,904 43
Total from all sources	126,254 87

This statement shows that the receipts from passengers are $80,900 24, equal to $1 40 on each through passenger.

The number of miles travelled by passengers are 2,080,294, equal to 57,786 through passengers.

The eastward tolls on freights amount to $13,640 81.

The westward tolls on freights amount to $17,643 31.

A more detailed statement will be found by reference to tables II, III and IV, annexto this report.

It is with great pleasure that the board of directors are enabled to lay before the stockholders the improved condition of the financial affairs of the corporation. It will be

seen, by comparing the statements annexed with those of last year, that the whole unfunded debt, amounting to upwards of $47,000, has been paid off, out of the net surplus receipts of the road. After paying the interest on the funded debt, and the current expenses for the year, there will be a balance in the hands of the treasurer of $12,413 11, which, added to the amount paid off, shows that the profits derived from the business of the road are more than nine per cent. on the capital stock of the company.

From the progressive increase of business, and the improved condition of the road during the last three years, with the prospect of a still greater increase from the Pennsylvania railroad, the stock of the Harrisburg and Lancaster railroad company cannot fail to become one of the most desirable railroad investments in the country.

The board of directors flatter themselves that the company is now in such a condition that the net profits of the road will be amply adequate, (after paying interest on the loans) to pay regular dividends to the stockholders, besides making appropriations towards a contingent fund, to liquidate the funded debt of the company.

Since the last annual meeting, the board has been seduously employed in improving the condition of the road. The twenty four miles of track laid with T rail is in excellent order; and that portion laid with flat far iron is in as good a state as a road of that kind can be made.

Twenty five tons of new T rail have been laid on the latter track during the year.

The whole distance from Harrisburg to Dillerville is now run in less than two hours —and the board is happy to state, that no accident has occurred on the road during the last year.

The *bridges* and *culverts* along the line of the road are in good repair. The flooring on the Big Chiques bridge has been relaid, and the structure otherwise improved.

The *locomotives* and *machinery* are all in excellent order; and the two new engines, the Washington and Franklin, perform well, and require but little expense to keep them in repair.

The *warehouses*, *waterslips* and *depot* at Harrisburg, are in as good a condition as they were at the last annual report, and are now rented for $2200 per annum.

The attention of the board of directors for some time past, has been directed to the construction of a branch railroad from the Harrisburg and Lancaster railroad to Marietta and Columbia.

The importance of this connection. in relation to the geographical position of this route, as well as the interest of the company, is obvious. It will not only secure a very large additional amount of trade and revenue, which has heretofore been carried through other channels, but it will put to rest any danger of coming into competition with any other rival company. This branch or route can be so located, as to pass along the thickly populated region of the Susquehanna, passing thro' the thriving towns of Brainbridge, Marietta, and Columbia, the great lumber marts on that river.

The citizens of the town on the line of the contemplated road have a deep interest in the construction of it, and are sensible of the importance and advantage it will be to them. They came forward, in the most cordial and liberal manner, to aid and assist the committee in their examinations; and have given the board the strongest assurance, that a liberal subscription can be obtained from the parties in that locality, interested in the construction of the road.

A charter has already been procured, authorising the company to construct a railroad from Harrisburg to York, on the western side of the Susquehanna; the construction of the branch referred to, will, however, do away the necessity of making that road.

With a view to accomplish so desirable an object, the board of directors made application to the legislature of this State, and obtained a supplement to their charter, authorising them to construct a branch from any point on their road, west of Mountjoy, to Marietta, with the privilege of extending to, and connecting with the Philadelphia and Columbia railroad, at Columbia.

Soon after the charter was obtained, a committee of gentlemen from the board of directors visited the ground, examined the routes, reported favorably, and recommended an early examination and survey of the ground; which report was approved, and measures taken to commence the work.

The board has two routes in view, either of which they believe can be made at less cost than the construction of ordinary roads. One of these routes connects with the Harrisburg and Lancaster railroad, about 1½ miles east of the tunnel, extending to Marietta and Columbia, distance about 8½ miles.

The other route extends from Columbia, along the bank of the river, and connects with the company's road near Portsmouth, a distance of about 18½ miles.

The company has engaged the services of Edward F. Gay, Esq., engineer, a gentleman of well known practical experience and skill in his profession, who is now on the ground with an efficient corps, actively employed in making surveys and examinations, with estimates of the cost and construction of the road.

All which is most respectfully submitted.

By order of the board,

JOSEPH YEAGER *President.*

Philadelphia Sept. 1, 1848.

[No. I.]

Statement of the whole receipts and expenditures of the company for the fiscal year commencing 1st September, 1847, and ending 31st August, 1848; also with the balances of cash.

To balance on hand 1st Sept., 1847		$2,992 80
To cash received for passengers		80,900 24
" freight		31,284 12
" extra freight		772 68
" rents		2,093 40
" mails		6,300 00
" old materials and engines		4,904 43
" bonds at par		2,000 00
" "		900 00
		132,147 67

Disbursed as follows:

By cash paid this amount of company's debts	47,420 86
By cash paid interest on company's loans and debts	32,309 40
By cash paid discount on uncurrent money	502 58
By cash paid (from bonds) in full for engines	2,000 00
By cash paid (from bonds) commissions on assignment removed last year, as per table No. VI	900 00
By cash paid balance of commissions, as per do	73 50
By cash paid insurance, taxes on property and capital stock, as per do	1,416 03
By cash paid for T rail, and materials for reconstructing road, as per do	2,708 36
By cash paid for repairing and running the road, including office expenses, salaries, rent, stationery, etc., as per do	32,288 83
By cash paid unclaimed dividends	115 00
By balance on hand	12,413 11
	132,147 65

[No. II.]

Abstract of freight business.

	Tolls eastward, collected at Harrisburg.	Tolls westward, collected at Dillerville.	Total amount.
1847—September	$309 17	1,006 56	$1,515 73
October	716 53	1,649 67	2,366 20
November	1,430 59	1,490 54	2,921 13
December	1,474 27	1,201 17	2,675 44
1848—January	1,906 18	1,819 02	3,725 20
February	1,994 87	2,533 08	4,527 95
March	1,993 14	3,328 04	5,321 18
April	996 78	1,585 69	2,582 47
May	919 71	953 94	1,873 65
June	624 01	811 58	1,435 59
July	469 50	552 36	1,021 86
August	606 06	711 66	1,371 72
	13,640 81	17,643 31	31,284 12

[No. III.]

Abstract of passenger business.

	Miles travelled by passengers.	Equivalent of through passengers.	Average receipts from each passenger.	Whole amount from passengers.
1847—September	194,479	5402	1·40	$7,563 07
October	175,826	4884	"	6,837 66
November	133,470	3708	"	5,190 51
December	112,940	3137	"	4,392 10
1848—January	113,773	3160	"	4,424 50
February	114,991	3194	"	4,471 87
March	165,755	4604	"	6,446 02
April	254,708	7075	"	9,905 30
May	209,873	5830	"	8,161 72
June	190,754	5299	"	7,418 20
July	180,704	5030	"	7,027 37
August	233,031	6473	"	9,061 92
	2,080,294	57,786		80,900 24

[No. IV.]

Abstract of the receipts from passengers, and freight, rents, mails, etc., for the past year.

From passengers	$80,900 24
freight	31,284 12
mails	6,300 00
rents	2,093 40
extra freight	772 68
	121,350 44
From sale of old materials and engines	4,904 43
Total income for year	126,254 87

This statement shows that the receipts from passengers are $80,900 24, equal to 57,785 through passengers, at 1·40 each.

The eastward tolls on freight amount to		13,640 81
The westward " "		17,643 31
		31,284 12

[No. V.]

Loans, and capital stock of the company, viz:

To 5 per cent sterling bonds sold in London, redeemable in 1858, amounting to £64,500, at 4·85		$312,825 00
To 6 per cent. dollar bonds, and funded debt in the United States until 1850, amounting to		260,882 45
		573,707 45
To capital stock, being 12,191 shares, per stock ledger, at $50 per share		609,550 00
		1,183,257 45

VAL. HOLMES, Treasurer.

[No. VI.]

A statement of the general expenses of she company, from 1st September, 1847, to 31st August, 1848, including the amount expended by the superintendent for repairs, materials, workmen and reconstructing the road, etc.

Repairs of roadway, bridges and superstructure between Dillerville and Elizabethtown	$2,244 92	
Repairs of roadway, bridges and superstructure, between Elizabethtown and Harrisburg	3,890 15	
Repairs and improvements of depot, machine shop, warehouses, water stations, and weighscales	649 69	
Repairs of locomotive engines and tenders	4,112 49	
" passenger and baggage cars	1,918 26	
Expense of wood	4,120 49	
" coal	327 51	
" expense of oil and cotton waste	952 28	
Wages of enginemen and firemen	3,584 50	
Wages of laborers engaged in pumping water, sawing wood, watching bridges and swliches	2,894 88	
Expense of carrying mail to postoffices	263 50	
Attorney's fees and legal expenses	172 83	
Printing, stationery, office and road exp	1,276 39	
Salaries of president, sicretary, treasurer, superintendent, collectors and conductors	5,880 94	
	32,288 83	
Insurance and taxes on property and capital stock	1,416 03	
Expense of T rail and materials for reconstructing road	2,708 36	
Expense: being commissions on assignment (removed last year).	973 50	
	5,095 89	
	37,386 72	

High Locomotive Speed--8 Feet Drivers.

The following account of an extraordinary run of 77 miles on the Great Western (England) railway, with the "*Courier*," an eight wheel locomotive, shows that *speed*, on railways, has not yet, by any means, reached its maximum; nor have the *driving* wheels of locomotives yet got their growth in this country. They are, however, making very considerable advances on several of our railroads, as *six* feet is now a very common size for the drivers to passenger engines—and the Messrs. Norris, of this city, are, we understand, building an engine for the Camden and Amboy railroad, with *seven* feet drivers—so that we shall ere long have a test of the utility and safety of high wheels on our American roads. The following is from the London Moring Herald.

Speed and Power of the Locomotive—Extraordinary Run with the Gt. Western Express Train—Seventy Miles per Hour for 43 Miles.—The most extraordinary journey that has yet been made by the express trains upon the Great Western railway, was performed on Saturday with the Courier locomotive, from Didcot to Paddington, with the twelve o'clock express train from Exeter, consisting of six carriages, weighing 60 tons. The Courier is one of the eight wheel class of engines, with 8 feet driving wheels. 18 inch cylinders, and 24 inch stroke; and the only difference between her and the others of the class, the extraordinary speeds of which we have frequently recorded, is, that her tubes are three inches shorter, and her fire box is, we believe, larger by six square feet. The engine was driven by John Heppel, who had charge of the celebrated Ixion, 7 feet driving wheel locomotive, during the gauge experiments. He is one of the oldest, steadiest and most intelligent drivers on the line, and managed his engine on Saturday with great judgment. He was, by the permission of Mr. Gooch, the locomotive superintendent of the Great Western railway, accompanied by J. Brown, one of the "crack" drivers in the service of the London and North Western, who rode on the foot plate of the engine and took the rate of working. From our own notes of the working of the Courier for the 53 miles from Didcot to Paddington, the 53 miles were performed—that is, from a state of rest to the time the engine entered the station at Paddington—in 49 minutes 13 sec., or at an average speed, including time lost in getting up speed when departing from Didcot, as well as the time lost in reducing speed when arriving at Paddington, of *sixty seven* miles per hour. The 47th mile post was passed at 3.46.40½, and the 4th mile post at 4.23.24½, so that *forty three miles were performed in thirty six minutes and forty four seconds, or at an average speed of upwards of seventy miles per hour.* The whole of the journey from Swindon to London, 77 miles, was scarcely less extraordinary than that from Didcot to London. The train left Swindon at 3 9.1, stopped at Didcot 5 min. 35 second, and reached Paddington at 4.28. 13. The 77 miles were therefore gone over in 78 minutes 29 seconds, including the 5m. 35 sec. stoppage at Didcot. The *thirteen miles, from the twenty ninth to the sixteenth mile post were performed at the rate of upwards of seventy two miles per hour.*

Attica and Buffalo Railroad Co.

In compliance with a resolution of the assembly, passed February 2, 1843, the Attica and Buffalo railroad company submit the following report for the year ending 1847.

Length of their road 31 miles 26 chains.
Length of branches about 50 chains.
The company own and have in use,
6 long passenger cars, 1st class.
3 " " 2d class.
23 long freight and baggage cars.
20 short wood cars.
5 locomotive engines.
1 machine shop.
Average number of men about 30.

The cost of the construction of the road is as follows:

Am't. expended on that account to Jan. 1, 1847	$306,704 53
Amount expended on same account in 1847	105,484 38
Whole cost of construction	412,188 90
Paid for cars and engines to January 1, 1847	48,104 33
Do. in 1847	27,250 10
	95,354 43
Total cost of road and fixtures	487,543 33

The total income of the road from all sources in 1847, was as follows:

From passengers	$104,010 22
freight	15,000 00
U. S. mail	4,800 00
Total earnings of the road	123,810 22
To this add proceeds of sale of old stock	12,872 75
	136,682 97
115,239 through passengers in 1847, fare	96,764 09
15,560 way " " "	7,246 13
130,799	104,010 22
Expenses in 1847 of construction as before stated	105,484 38
Paid in 1847 for cars and engine	27,250 00
" running expenses	49,000 00
Total expenses of 1847	181,734 38
Amount of dividends paid in 1847	33,990 00
	215,724 38

Number of miles run by passenger trains....59,211
" " freight " 17,580

JAMES O. PUTNAM.

[From the Philadelphia "Commercial List."]

Pennsylvania Coal Trade for 1848.

From the Lehigh Mines.

The amount of coal shipped from the Lehigh mines during the week ending the 21st ult., and since the opening of the navigation, has been as follows:

	This week. tons.	Total this year—tons.
By Lehigh company, Oct. 24.	3,573 01.	197,765 10
By Room Run "	4,189 14.	105,721 10
By Hazleton	2,700 00.	77,596 00
By Beaver Meadow	2,739 12.	73,032 12
By Buck Mountain	2,653 01.	62,936 01
By Spring Mountain	1,762 06.	55,208 08
By Cranberry Mines	658 00.	12,612 00
White Haven	356 15.	9,077 05
Diamond Co	546 10.	4,346 07
Total	19,178 19.	588,303 13

From the Schuylkill Mines.

The amount of coal forwarded by Reading railroad during the week ending the 26 h ult., and since the 1st of January, has been as follows—

	Tons.
From Schuylkill Haven	11,001 16
" Pottsville	5,509 07
" Port Carbon	9,303 01
" Port Clinton	2,800 00
Total this week	28,614 04
Total this year	1,052,101 00

The amount of coal brought to market by the Schuylkill canal during the week ending the 26th ult., and since the opening of the canal, has been as follows:—

	Tons.
From Pottsville and Port Carbon	7,772 07
" Schuylkill Haven	3,671 19
" Port Clinton	664 11
Total this week	12,108 17
Total this year	374,422 17

Recapitulation.—Total Shipments this Season.

By Lehigh companies	588,303 13
By Reading railroad	1,052,101 00
By Schuylkill canal	374,423 17
Total	2,014,827 10

Prevention of Collisions on Railways.

The London Mining Journal says, that "An ingenious contrivance for preventing accidents on railways, and one that appears well worthy of notice, has been exhibited at the Polytechnic Institution for some weeks past. It differs from most arrangements of the kind in one important point—that is, to prevent collision, instead of lessening the shock when coillision has taken place. This appears to be a move in the right direction. It is, perhaps, pretty well known that, by the existing arrangement, the services of a guard are required in stopping a train—the engine-driver not having the power of applying the breaks to the carriage; so that, in a case of emergency, if either of these officers be off his guard, it is so much valuable time lost; and let it be borne in mind, also, that the guard, individually, has no control over the train whilst the motive power is acting; and, although he is one most likely to observe danger first, yet he can do nothing more than make signals to the engineer, so that he may understand that danger is at hand, and act accordingly—hence the many contrivances that have been put forth from time to time for enabling the guard to communicate with the engineer by signal; and again if they are both on the alert, and act the moment they observe danger, still the means at their command for stopping the train appear inadequate; and, in opposition to their exertions, the train runs on for a considerable distance.

Let us take the accident at the Shriveham station, on the Great Western line, as an example. The distance the train run in that case from the time danger was observed, till it come in contact with the carriages on the line, was more than enough to enable the officers in charge of the train to stop it in perfect safety, if they had but the means at their command. The fact was proved by Sir George Cayley, some years since experimentally. He showed that a train, proceeding with a volocity of 22 miles per hour, could be stopped within the space of 20 ft. in perfect safety, and for any increase of velocity in the same ratio; and yet, strange as it may appear, no plan has yet been put in practice to take advantage of this fact. A gentleman of the name of Bishop, however, has recently taken out a patent for a contrivance of this kind, which appears, by experiments with the models, to answer the purpose admirably. Perhaps, the following brief explanation will give some idea of the advantages of the contrivance:—Let it be understood, in the first case, that every carriage has the breaks attached to it; and that, by means of a bar, placed under the carriages, the breaks may be thrown in or out of action at pleasure; and that, when the train is made up, these bars could be connected from carriage to carriage—so that the engineer, by acting upon this bar at one end of the train, has the power of applying the breaks to every carriage simultaneously, converting, as it were, the whole train into a sledge. Let it also be understood, that the guard has the same power over these breaks as the engineer, rendering the one independent of the other; but what is still more important it gives the guard, as well as the engineer, full and efficient power to check the velocity of the train, or to stop it altogether—for it can be shown that the breaks being applied to every wheel, in a train, the power of any locomotive engine would not be sufficient to move it forward; and that, when the steam has been shut off, and the breaks applied, the train may be stopped within an incredibly short space. All these matters are fully demonstrated by the models that are exhibited; and it is to be hoped that, ere long, we shall find some such efficient contrivance upon every railway in the kingdom.

The Electric Telegraph.

Improved Modes of Insulation.

Mr. J. H. Hammerton, superintendent of the Electric Telegraph Company, has addressed the following letter to the *Mechanics' Magazine*:—"As the advantages of the electric telegraph are daily becoming better understood, it is probable this mode of communication may ultimately be extended to most of the principle towns in the kingdom; whatever, therefore, tends to improve the means of transmitting signals by the aid of electricity is likely to be beneficial to the public, as well as to the Electric Telegraph Company. The most serious obstacle to the transmission of signals by electric action is the want of perfect insulation. I beg to submit the following plan as better adapted to obtain the desired object that any hitherto attempted. As a substitute for the earthenware cones, at present in use, for suspending the wires to the poles, I propose screwing on to the pole a piece of 1½-inch or other convenient sized batten of the required length; gutta percha tubes, 12 or 14 inches long, and widened into a lip at the extremities, are then strung upon wires, and attached to the poles by a plate of zinc, shaped to the form of the cubes. At the winding posts the bolt of the racket-wheel for tightening the wires is insulated by earthenware collars; I have used collars of similar form made of gutta percha, having a disk of hard wood interposed between the shoulders of the bolt and the collar, to take off some part of the strain. The plan has been perfectly successful. In towns, it is necessary to lay the conducting wires under the streets; for this purpose they are placed in leaden tubes, which are enclosed in iron pipes, but the insulation is very defective. I propose to have any number of copper wires, covered individually with a tube of gutta percha fitting close to the wire, and either with or without a join along the sides; the latter, though rather more expensive, is doubtless the best plan. These several wires are then either bound together with a band of gutta percha, or enclosed in a tube or solid mass of the same material, which is placed in common gas pipes, and laid down under the pavement in the streets, or may be used in tunnels, or other places where it is inconvenient to have open wires. I have submitted wires covered in the manner just described to the severest test, with perfect success. After keeping them in water many days, I have sent a current of electricity along them generated by 288 pairs of plates. I have used 24 cells of Grove's battery for the like purpose, and used the most delicate galvanometer to detect any contact between the wires, but the insulation has, in every instance, proved to be perfect. Each of the modes of insulation above described has the further advantage of being considerably cheaper than any at present in use. I enclose a diagram of the mode of insulation in the poles." [In the *Mechanics' Magazine* of this day, Mr. Francis Wishaw states in a communication to the editor, that the Gutta Percha Company have successfully adopted several plans for insulating telegraphic wires by gutta perch, similarly to the above; and that he exhibited a specimen at the meeting of the British Association.—Mr. Baddely claims for Mr. Bain, who is now in America, that he used it for the same purpose six months since; and a statement also appears from "Z. U.," to the effect that this substance was employed by Mr. Physick, the Telegraph Company's engineer, in February last, in the Kilsby, Leighton, Watford, and Kensal Green tunnels, and has proved perfectly successful. The following is from Mr. Baddely's letter:—"Mr. Hammerton now *proposes* to cover the wire with gutta percha, fitting close to the wire, 'either with or without a join along the sides; the latter though rather more expensive, being doubtless the best plan.' By Mr. Bain's process, I believe the latter plan is not more expensive than the other. If I remember rightly, Mr. Bain at the same time told me, that the fitness of gutta percha, as an insulating medium, had occurred to many different persons"]

English Railway Traffic.

"From our official returns," says the Chronicle, "it appears that the amount of traffic for the last week, on 4,110 miles of railway, was £225,801, thus accounted for: £119,402 for the conveyance of passengers only, £48,450 for the carriage of goods, and a remainder of £57,949 for passengers and goods together, not respectively apportioned; being an increase of £11,528 over the corresponding week o last year, when the mileage was 3,296. The average earnings per mile were £55, while in 1847 they were £65."

NEW YORK & PHILADELPHIA.

NEW JERSEY RAILROAD & TRANSPORTATION CO.—

6 O'CLOCK, A. M.

Accommodation Line from New York to Philadelphia, via Jersey City, New Brunswick, and Camden.

Fare for 1st class cars, $3; for 2d class, $2 50; children under 12 years, half price.

Leaving every morning, (Sundays excepted) at 6 o'clock, from foot of Courtlandt street, and passing through Newark, Elizabethtown, Rahway, New Brunswick, Kingston, Princeton, Trenton, Bordentown, Burlington and Camden, and arriving at Philadelphia at 11½ A. M.

Leave New York 6 o'clock A. M.; Newark, 6h. 30m.; Elizabethtown 6h. 40m.; Rahway, 7 A. M.

DAILY EXCURSION TO PHILADELPHIA.

Excursion Tickets will be furnished, entitling the passengers to return by the 4½ o'clock P. M. Mail Line the same day, or next morning by the 6 o'clock A. M. Mail Line, for FIVE DOLLARS.

RAILROAD IRON.

THE NEW JERSEY RAILROAD & TRANSPORTATION CO. have for sale from 450 to 500 tons of Iron Rails, weighing from 35 to 37 lbs. per yard, of the T pattern, recently taken up from their road to give place to a heavier rail, together with Chairs and Spikes to correspond, which they will sell cheap for cash; the rails have been straightened and prepared for re-laying, and are now ready for delivery on the dock at Jersey City. Apply at

57 Merchants Exchange,
August 23, 1848.—3t* New York.

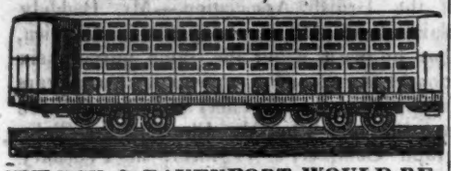
JAMES LAURIE, *Civil Engineer.*

No. 23 RAILROAD EXCHANGE, BOSTON, MASS.

Railroad Routes Explored and Surveyed. Estimates, Plans and Specifications furnished for Dams, Bridges, Wharves, and all Engineering Structures.
October 14, 1848. 6m*

CAR MANUFACTORY,

CINCINNATI, OHIO.



KECK & DAVENPORT WOULD RESPECTFULLY call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to different points speedy and economical. They are prepared to execute to order, on short notice, Eight-Wheeled Passenger Cars of the most superior description, Open and Covered Freight Cars, Four or Eight-Wheel Crank and Lever Hand Cars, Trucks, Wheels and Axles, and Railroad Work generally.
Cincinnati, Ohio, October 2, 1848. 4tif

TO CONTRACTORS.

GREAT LETTING OF WORK ON THE CLEVELAND, COLUMBUS & CINCINNATI RAILROAD.

PROPOSALS will be received at the office of the engineer, in the city of Cleveland, until the 1st day of November next, at noon, for the grading, bridging, and masonry, also timber for the superstructure of one hundred and thirty miles of the Cleveland, Columbus and Cincinnati Railroad, lying between the cities of Cleveland and Columbus. Said work comprises some of the finest ever offered to contractors, and will be let in long or short sections, as may be desired. The approximate quantities are 3,500,000 yards earth excavation, 30,000 perches masonry, 300,000 cross ties, or sleepers, etc.

Plans, profiles and specifications of the work will be ready for inspection at the offices in Cleveland and Columbus on and after the 15th of October next. Payments will be made monthly, on a fair average value of work done; twenty per cent. of which will be retained to ensure fulfillment of contract.

FREDERICK HARBACH, Eng.
September 21, 1848. 3t11

DEAN, PACKARD & MILLS,

MANUFACTURERS OF ALL KINDS OF

RAILROAD CARS,

SUCH AS

PASSENGER, FREIGHT AND CRANK CARS,

— ALSO —

SNOW PLOUGHS AND ENGINE TENDERS

OF VARIOUS KINDS.

CAR WHEELS and AXLES fitted and furnished at short notice; also, STEEL SPRINGS of various kinds; and

SHAFTING FOR FACTORIES.

☞ *The above may be had at order at our Car Factory,*

REUEL DEAN,
ELIJAH PACKARD, } SPRINGFIELD, MASS.
ISAAC MILLS,
1y48

RAILROAD IRON.

3000 TONS, ABOUT 60 LBS. PR lineal yard—deliverable early in the Spring, and of undoubted quality, can be contracted for at a low rate. For sale by

DAVIS, BROOKS & CO.,
68 Broad street.
New York, Sept. 16. 1848, 39tf
Also on hand—1000 Tons best quality Rails.

FULLER'S PATENT INDIA RUBBER CAR SPRINGS.—These Springs have been in use for nearly four years, with most complete success, and they are now in use upon most of the principal roads in this country. They are made of the best material, are economical, light, and very easy in their motion—all persons using them are guaranteed against adverse claims.

Offices 78 Broad street New York, and Jas. Lee & Co., 18 India wharf, Boston.

Railroad companies are cautioned against the statements made by the New England car company. The India rubber used by the patentee is the best that can be made, and does not conflict with any existing patent. The rediculous statement that a patentee may not vend his own invention needs no remark.

The patent for these springs was granted to W. C. Fuller, in Oct., 1845, in the United States and in England; A Mr. Ray claims to have invented another spring, which counsel advise, is a mere evasion of Mr. Fuller's patent, and proceedings are being taken to stop that infringement.

"The New England Car Company" have published an article from the pen of Mr. Hale, president of the Boston and Worcester railroad, expressing his opinion concerning these springs—but they have forgotten to publish the whole of that article; it is therefore given in full now, and the portion omitted by the New England car company is printed in italics, that the public may judge of the manner in which this "company" pervert Mr Hale's meaning.

G. M. KNEVITT, Agent,
78 Broad St., New York.
September 30, 1848.

[*From the Boston Advertiser of the 7th June.*]

INDIA RUBBER SPRINGS FOR RAILROAD CARS.

"Of the numerous uses to which the wonderful elasticity and durability of India rubber, renders this material applicable, we are hardly aware of one, in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the Newton special train of the Boston and Worcester railroad. It is there used not only for the springs on which the car rests, but for the springs attached to the draw bar, at each end of the car, to prevent any jar on the sudden commencement, or interruption of the motion of the car. For both these purposes it appears to be admirably adapted, and we do not learn that during the period in which it has been used, any defect in it has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think, than any other spring which we have seen in use, from every harsh or unpleasant motion, either vertical or horizontal. It is also simple in its form and application, extremely light, and little liable to get out of repair. During the period of some months in which we have seen the springs in operation, there is no apparent wear or diminution of its efficiency. *Each spring is composed of several circular layers or rings of India rubber, a thin metallic plate of the same size being interposed between each of the layers. From the simplicity of its form, it cannot be expensive, and it admits of being made more or less elastic almost at pleasure. The invention, we understand, was first patented in England, where it has been introduced into general use on several of the principal railroads, and we have no doubt it will come into very extensive use in this country. The patent for this invention, we understand, has been granted to Mr. W. C. Fuller in England and France, and also in this country. Mr. Knevitt, of New York, is the agent for the patentee in the United States, and he has established a branch office for the supply of the article in this city, as may be learned from an advertisement in another column of this paper.*"

RAILROAD SCALES.—THE ATTENTION of Railroad Companies is particularly requested to Ellicotts' Scales, made for weighing loaded cars in trains, or singly, they have been the inventors, and the first to make platform scales in the United States; supposing that an experience of 20 years has given a knowledge and superior advantage in the business.

The levers of our scales are made of wrought iron, all the bearers and fulcrums are made of the best cast steel, laid on blocks of granite, extending across the pit, the upper part of the scale only being made of wood. E. Ellicott has made the largest Railroad Scale in the world, its extreme length was one hundred and twenty feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad.

We are prepared to make scales of any size to weigh from five pounds to two hundred tons.

ELLICOTT & ABBOTT.
Factory, 9th street, near Coates, cor. Melon st.
Office, No. 3 North 5th street,
v25 Philadelphia, Pa.

TO RAILROAD COMPANIES AND MANufacturers of railroad Machinery. The subscribers have for sale Am. and English bar iron, of al. sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,
s45 N. E. cor. 12th and Market sts., Philad., Pa.

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,
a45 President of the Newcastle Manuf. Co.

LAP—WELDED

WROUGHT IRON TUBES

FOR

TUBULAR BOILERS,

FROM 1 1-2 TO 8 INCHES DIAMETER.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER,
Patentee.
28 Platt street, New York.

ENGINEERS' AND SURVEYERS'

INSTRUMENTS MADE BY

EDMUND DRAPER,

Surviving partner of

STANCLIFFE & DRAPER.

No 23 Pear street, below Walnut,
1y10 near Third, Philadelphia.

DIRECT ACTION ENGINES
FOR STEAMBOATS.
THE PATENT DOUBLE CYLINDERS,
AND ALSO
THE ANNULAR RING PISTON ENGINES,
of Messrs. Mauldslay, Sons & Field, of London, may be built in the United States, under license, which can be obtained of their agent,

THOMAS PROSSER, C. E.,
28 Platt street, New York.

May 6, 1848.

WILLIAM JESSOP & SONS,
CELEBRATED CAST-STEEL.

The subscribers have on hand, and are constantly receiving, from their manufactory,

PARK WORKS, SHEFFIELD,

Double Refined Cast Steel—Square, flat & octagon.
Best warranted Cast Steel—Square, flat & octagon.
Best Double and Single Shear Steel—Warranted.
Machinery Steel—Round.
Best and 2d gy. Sheet Steel—for Saws and other purposes.
German Steel—flat and sqr., "W. I. & S." "Eagle" and "Goat" Stamps.
Genuine "Sykes," L Blister Steel.
Best English Blister Steel, etc., etc., etc.

All of which are offered for sale on the most favorable terms, by WM. JESSOP & SONS,
91 John Street, New York,

Also by their Agents—
Curtus & Hand, 47 Commerce St., Philadelphia.
Alex'r Fullerton, & Co., 119 Milk St., Boston.
Stickney & Beatty, South Charles St., Baltimore.
May 6, 1848.

NEW PATENT CAR WHEELS.

THE SUBSCRIBERS ARE NOW MANUfacturing Metallic Plate Wheels of their invention, which are pronounced by those that have used them, a superior article, and the demand for them has met the most sanguine expectations of the inventors. Being made of a superior quality of Charcoal Iron, they are warranted equal to any manufacture.

We would refer Railroad Companies and others to the following roads that have them in use. Hartford and New Haven, Connecticut River Railroad, Housatonic, Harlem, Farmington, and Stonington.

SIZER & CO.
January 29, 1848. tf Springfield, Mass.

RAILROAD IRON AND LOCOMOTIVE Tyres imported to order and constantly on hand by A. & G. RALSTON
Mar. 20tf 4 South Front St., Philadelphia.

TO MACHINISTS & MANUFACTURERS. The Subscribers have taken the READING CAR AXLE MANUFACTORY—and are prepared to execute orders for *Axles of every description*, and Wrought Iron Shafts for Steamboats, Mills, etc., made from superior material, at short notice. Address *Reading, Pa.*

ANDREW TAYLOR & CO.
August 5, 1848—3m*

RAILROAD IRON—SHEET IRON—

BRASIER'S RODS—HOOPS—SCROLL—BANK'S BEST—& OTHER GOOD MAKES OF ENGLISH IRON.

100 Tons Railroad Iron—Staffordshire make—56 pounds per yard—shipped from Liverpool 20th July, expected to land on wharf from 10th to 20th September.

Also have Invoices of Sheet Iron, Brasier's Rods, Hoops, Scroll, and Band Iron, Banks best, and other good makes of English Rolled Iron, to arrive, suitable for Railroad Axles, etc., etc., equal in quality to American Rolled Iron. I have agency of several best makers in England and Wales, and can import for Railroad Companies, and others, on best terms, and at much less prices than they can be supplied from American Mills.

DAVID W. WETMORE,
218 Water street.
New York, Sept. 9, 1848. 6w*

MATTEWAN MACHINE WORKS.

THE MATTEWAN COMPANY HAVE added to their Machine Works, an extensive LOCOMOTIVE ENGINE department, and are prepared to execute orders for *Locomotive Engines* of every size and pattern—also, *Tenders, Wheels, Axles*, and other Railroad Machinery, to which they ask the attention of those who wish such articles, before they purchase elsewhere.

STATIONARY ENGINES, BOILERS, ETC., Of any required size or pattern, arranged for driving *Cotton, Woollen*, or *other* Mills, can be had on favorable terms, and at short notice.

COTTON AND WOOLLEN MACHINERY, Of every description, embodying all the modern improvements, second in quality to none in this or any other country, made to order.

MILL GEARING,
Of every description, may be had at short notice, as this company has probably the most extensive assortment of patterns in this line, in any section of the country, and are constantly adding to them.

TOOLS.
Turning Lathes, Slabbing, Planing, Cutting, and *Drilling* Machines, of the most approved patterns, together with all other tools required in machine shops, may be had at the Mattewan Company's Shops, Fishkill Landing, or at

39 Pine Street, New York.
WM. B. LEONARD, *Agent.*

FAIRBANKS' RAILROAD SCALES.

THE Subscribers are prepared to construct at short notice, *Railroad* and *Depot Scales*, of any desired length and capacity. Their long experience as manufacturers—their improvements in the construction of the various modifications, having reference to strength, durability, retention of adjustment, accurracy of weight and despatch in weighing—and the long and severe tests to which their scales have been subjected—combine to ensure for these scales the universal confidence of the public.

No other scales are so extensively used upon Railroads, either in the United States or Great Britain; and the manufacturers refer with confidence to the following in the United States.

Eastern Railroad,	Boston and Maine R. R.,
Providence Railroad,	Providence & Wor. R.R.,
Western Railroad,	Concord R. R.,
Old Colony Railroad,	Fitchburg R. R.,
Schenectady Railroad,	Syracuse and Utica R. R.,
Baltimore & Ohio Road,	Baltimore & Susq. R. R.,
Phila. & Reading Road.	Schuylkill Valley R. R.,
Central (Ga.) Railroad.	Macon and Western R.R.,

New York and Erie Railroad;
and other principal Railroads in the Western, Middle and Southern States.

E. & F. FAIRBANKS & CO.
St. Johnsbury, Vt.
Agents { FAIRBANKS & Co., 81 Water st. N. York. / A. B. NORRIS, 196 Market st., Philad.
April 22, 1848. 1y*17

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, *Agent.*

Albany Iron and Nail Works, Troy, N. Y.
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

THE SUBSCRIBERS ARE PREPARED TO execute orders at their Phœnix Works for Railroad Iron of any required pattern, equal in quality and finish to the best imported.

REEVES, BUCK & CO.,
Philadelphia.
ROBERT NICHOLS, Agent,
26tf No. 79 Water St., New York.

CHILLED RAILROAD WHEELS.—THE undersigned are now prepared to manufacture their Improved Corrugated Car Wheels, or Wheels with any form of Spokes or Disks, by a new process which prevents all strain on the metal, such as is is produced in all other chilled wheels, by the manner of casting and cooling. By this new method of manufacture, the hubs of all kinds of wheels may be made whole—that is, without dividing them into sections—thus rendering the expense of banding unnecessary; and the wheels subjected to this process will be much stronger than those of the same size and weight, when made in the ordinary way.

A. WHITNEY & SON,
Willow St. below 13th,
Nov. 10, 1847. [tf.] Philadelphia, Penna.

THE SUBSCRIber has on hand a good assortment of his best Leveling and Surveying Instruments, among them his improved Compass for taking angles without the needle—also Bells, suitable for Churches, Railroad Depots, etc. ANDREW MENEELY.
West Troy, May 12, 1847. 1y*21

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York will be punctually attended to.

HENRY BURDEN, *Agent*

Spikes are kept for sale, at Factory Prices, by & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Jarviers, Baltimore; Degrand & Smith, Boston.

*** Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.
ja45

TO LOCOMOTIVE AND MARINE ENgine Boiler Builders. Pascal Iron Works, Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also, Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; Hollow Pistons for Pumps of Steam Engines, etc. Manufactured and for sale by

MORRIS TASKER & MORRIS,
Warehouse S. E. corner 3d and Walnut Sts., Philadelphia. 1tf

CHILLED RAILROAD WHEELS.—THE undersigned, the *Original Inventor* of the *Plate Wheel* with solid hub, is prepared to execute all orders for the same, promptly and faithfully, and solicits a share of the patronage for those kind of wheels which are now so much preferred, and which he originally produced after a large expenditure of time and money. A. TIERS.
Point Pleasant Foundry,

He also offers to furnish Rolling Mill Castings, and other Mill Gearing, with promptness, having, he believes, the largest stock of such patterns to be found in the country. A. T.
Kensington, Philadelphia Co., }
March 12, 1848. } 11tf

NORWICH CAR FACTORY.
NORWICH, CONNECTICUT.

AT the head of navigation on the River *Thames* and on the line of the *Norwich and Worcester Railroad*, established for the manufactory of

RAILROAD CARS,

OF EVERY DESCRIPTION, VIZ:
PASSENGER, FREIGHT AND HAND CARS,

ALSO, VARIOUS KINDS OF
ENGINE TENDERS AND SNOW PLOUGHS
TRUCKS, WHEELS & AXLES

Furnished and fitted at short notice.

Orders executed with promptness and despatch.

☞ Any communication addressed to
JAMES D. MOWRY,
General Agent,
Norwich, Conn.,

Will meet with immediate attention. 1y8

MANUFACTURE OF PATENT WIRE

Rope and Cables for Inclined Planes, Standing Ship Rigging, Mines, Cranes, Tillers etc., by
JOHN A. ROEBLING, *Civil Engineer,*
Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Slips, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railrord, has now run 4 seasons, and is still in good condition. 92v1 1y

NICOLL'S PATENT SAFETY SWITCH

for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

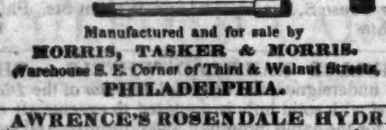
Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee
G. A. NICOLLS,
ja45 *Reading, Pa.*

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to ¼ in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T's, L's, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by
MORRIS, TASKER & MORRIS.
Warehouse S. E. Corner of Third & Walnut Streets,
PHILADELPHIA.

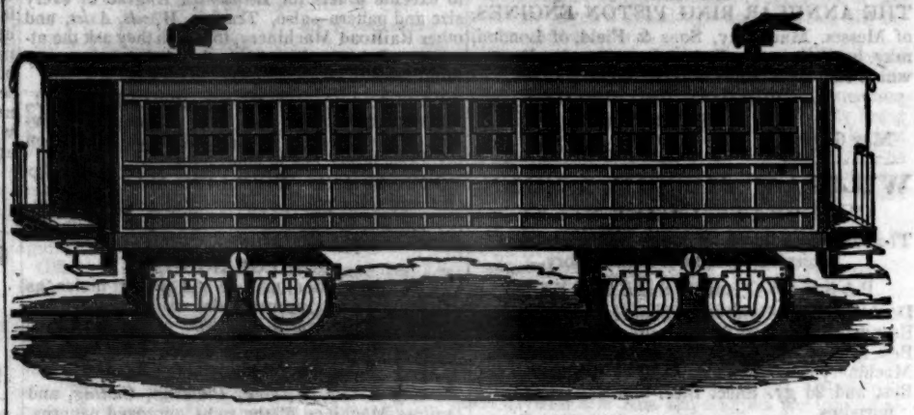
LAWRENCE'S ROSENDALE HYDRAULIC CEMENT.

This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Flooms and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by
JOHN W. LAWRENCE,
142 Front street, New York.

☞ Orders for the above will be received and promptly attended to at this office. 32 1y

DAVENPORT & BRIDGES'
CAR WORKS, CAMBRIDGEPORT, MASS.



Manufacture to Order, Passenger and Freight Cars of every description, and of the most improved pattern; also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices.

All orders punctually executed and forwarded to any part of the country.

Our Works are within fifteen minutes ride from State street, Boston—Omnibuses pass every fifteen minutes. 10*f*

THE SUBSCRIBER IS PREPARED TO

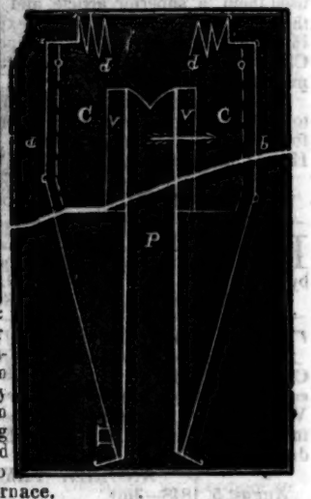
execute at the Trenton Iron Works, orders for Railroad Iron of any required pattern, and warranted equal in every respect in point of quality to the best American or imported Rails. Also on hand and made to order, Bar Iron, Braziers' and Wire Rods, etc., etc.
PETER COOPER,
1y10 17 Burling Slip, New York

RAILROAD IRON, PIG IRON, ETC.

600 Tons of T Rail 60 lbs. per yard.
25 Tons of 2¼ by ½ Flat Bars.
25 Tons of 2¼ by 9-16 Flat Bars.
100 Tons No. 1 Gartshrorie.
100 Tons Welsh Forge Pigs.
For Sale by A. & G. RALSTON & CO.
No. 4 So. Front St., *Philadelphia*

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved Spark-Arrester recently patented by the undersigned.



Our improved Spark Arresters have been extensively used during the last year on both passenger & freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public The form is such that a rotary motion is imparted to the heated air smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits

R. L. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendant Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendant Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich; G. B. Fisk, President Long Island Railroad, Brooklyn.

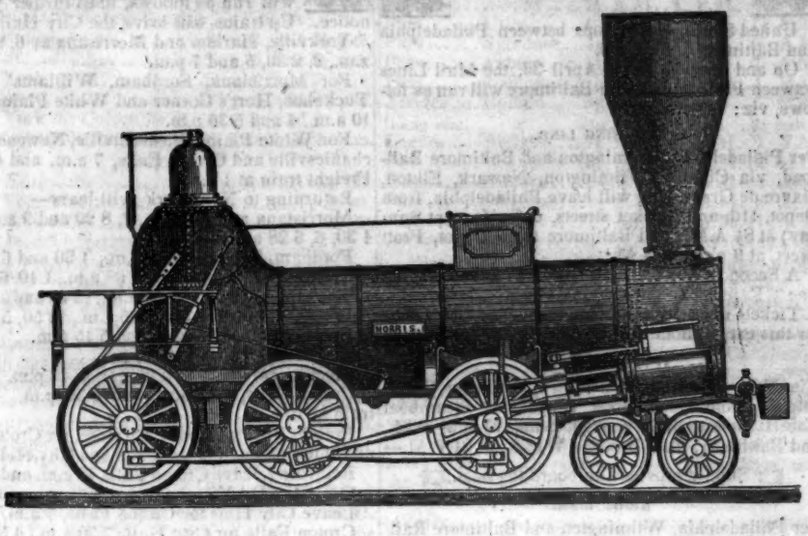
Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city, will be promptly executed.
FRENCH & BAIRD.

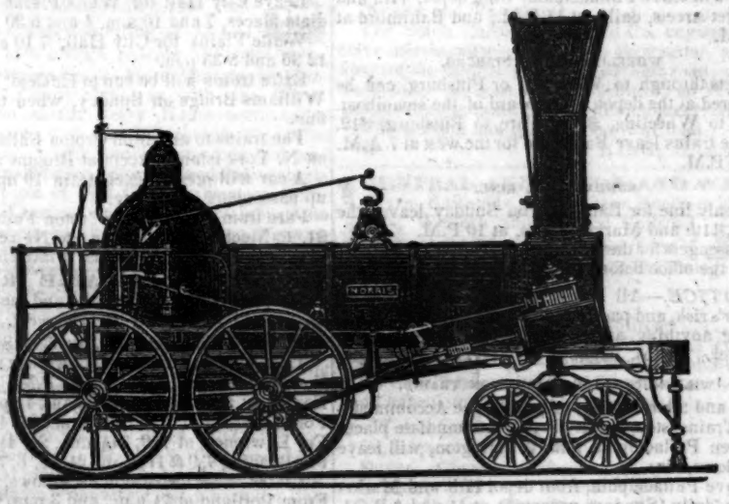
N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.
Philadelphia, Pa., April 6, 1844.

*** The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

NORRIS' LOCOMOTIVE WORKS.

BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA,





THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size.

Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusual advantages for prompt delivery of Machinery of superior workmanship and finish.

Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS' BROTHERS.

MACHINE WORKS OF ROGERS, Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed beinglarge, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
Paterson, N. J., or 60 Wall street, N. York.

PIG AND BLOOM IRON.—THE SUBSCRIbers are agents for the sale of numerous brands of Charcoal and Anthracite Pig Iron, suitable for Machinery, Railrond Wheels, Chains, Hollowware, etc. Also several brands of the best Puddling Iron, Juniatta Blooms suitable for Wire, Boiler Plate, Axe Iron, Shovels, etc. The attention of those engaged in the manufacture of Iron is solicited by

A. WRIGHT & NEPHEW,
12tf Vine St. Wharf, Philadelphia.

T & C. WASON, Manufacturers of every style of Freight and Baggage Cars.—Forty rods east of the depot, Springfield, Mass.

Running parts in sets complete, Wheels, Axles, or any part of cars furnished and fitted up at short notice and in the best manner.

N.B. Particular attention paid to the manufacture of the *most improved* Freight Cars. We refer to the New Haven, Hartford and Springfield; Connecticut River; Harlem; Housatonic, and Western, Mass., Railroads, where our cars are now in constant use.

Dec.25,1847.—1y.

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engagep in manufacturing Spring Steel from 1¼ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, *Agent*,
1y Albany Iron and Nail Works,

IMPORTANT TO ENGINEERS, CONtractors, and Surveyors.—The Engineer's, Contractor's and Surveyor's Pocket Table Book, by J. M. Scribner, A. M., 264 pages, 24 mo; tuck binding, with gilt edge. Published by Huntington & Savage, 216 Pearl street, New York.

The above work comprises Logarithms of Numbers, Logarithmic Sines and Tangents, Natural Sines and Natural Tangents; the Traverse Table, and a full and extensive set of tables, *exhibiting at one view the number of cubic yards contained in any embankment or cutting, and for any base or slope of sides usual in practice.* Besides these essential tables, the work comprises 50 pages more of Mensuration, Tables, Weights of Iron, Strength of Materials, Formulas, Diagrams, etc., for laying out railroads, canals and curves; much of which has never before been offered to the public, and all dispensable to the engineer. This book will prove a great saving of time, and will enable the new beginner to furnish results as accurately (and with much greater rapidity) as the most experienced in the profession without its aid. The tables of Logarithms, etc., have been carefully corrected and compared with *different* editions of the same tables; and *all* the tables throughout the book have been read carefully by proofs four times; hence the most implicit confidence may be placed in their correctness.

Also, *Scribner's Engineer's and Mechanic's Companion*, new edition, 264 pages, enlarged, with 35 pages of entirely new matter, and much improved throughout.

It is believed these books are so well adapted to suit the above professions, that they cannot *afford* to do without them, and that they will aid in rewarding well directed mental labor.

Both are for sale by all the principal booksellers throughout the United States and Canada.

WESTERN RAILROAD.—ON AND AFter Monday, April 5, 1847, the passenger trains will leave daily, Sundays excepted, as follows:

Boston at 8 a. m. and 4 p. m. for Albany.

Albany at 7 1-4 a. m. and 5 p. m. for Boston.

Springfield at 8 1-2 a. m. and 1 p. m. for Albany

Springfield at 8 1-2 a. m. and 1 1-2 and 3 p. m. (or on arrival of the train from New York) for Boston.

Day line to New York, via Springfield.—The steamboat train leaves Boston at 6 a. m., and arrives in New York at 7 p. m., by the steamboats Traveller, New York, or Champion. Returning, leaves New York at 6 1-4 a. m., and arrives in Boston at 7 p. m.

Night line to New York.—Leaves Boston at m., and arrives in New York at 5 a. m.

Albany and Troy.—Leave Boston at 8 a. m., Springfield at 1 p. m., and arrive in Albany at 6 p. m.; or, leave Boston at 4 p.m., Springfield next morning at 8 1-2, and arrive in Albany at 1 1-2 p.m.

The Troy trains connect at Greenbush.

The trains for Buffalo leave at 7½ a.m. and 7 p.m.

For Northampton, Greenfield, etc.—The trains of the Connecticut River Railroad leave Springfield at 9 1-4 a.m., 1 and 3 p.m., and passengers proceed directly on to Bratleboro', Windsor, Bellows Falls, Walpole, Hanover, Haverhill, etc.

For Hartford.—The trains leave Springfield on the arrival of the trains from Boston.

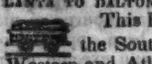
The trains of Pittsfield and North Adams Railroad leave Pittsfield on the arrival of the trains from Boston.

N. B.—No responsibility assumed for any baggage by the passenger trains, except for wearing apparel not exceeding the value of fifty dollars, unless by special agreement.

JAMES BARNES, Sup't and Eng'r.
C A. SEAD, Agent, 27 State street, Boston.

GEORGIA RAILROAD. FROM AUGUSTA to ATLANTA—171 MILES.

AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO DALTON, 100 MILES.



This Road in connection with the South Carolina Railroad and Western and Atlantic Railroad now forms a continuous line, 408 miles in length, from Charleston to Dalton (Cross Plains) in Murray county, Ga.—32 miles from Chattanooga, Tenn.

RATES OF FREIGHT.		Between Augusta and Dalton. 271 miles.	Between Charleston and Dalton. 408 miles.
1st class.	Boxes of Hats, Bonnets, and Furnature, per cubic foot	$0 18	$0 28
2d class.	Boxes and Bales of Dry Goods, Sadlery, Glass, Paints, Drugs and Confectionary, per 100 lbs.	1 00	1 50
3d class.	Sugar, Coffee, Liquor, Bagging, Rope, Cotton Yarns, Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow Ware, Castings, Crockery, etc.	0 60	0 85
4th class.	Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc	0 40	0 65
	Cotton, per 100 lbs	0 45	0 70
	Molasses, per hogshead	8 50	13 50
	" " barrel	2 50	4 25
	Salt per bushel	0 18	
	Salt per Liverpool sack	0 65	
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows	0 75	1 50

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at Dalton.

F. C. ARMS,
Sup't. of Transportation.

Augusta, Ga., July 15, 1847. 44•1y

THE WESTERN AND ATLANTIC Railroad.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Rail road.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur and Tuscumbia, Alabama, and Memphis, Tennessee.

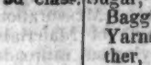
On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,
Chief Engineer.

Atlanta, Georgia, April 16th, 1846 1y1

CENTRAL RAILROAD—FROM SAVANnah to Macon. Distance 190 miles.



This Road is open for the transportation of Passengers and Freight. Rates of Passage, $8 00. Freight—

On weight goods generally... 50 cts. per hundred.
On measurement goods ..... 13 cts. per cubic ft.
On brls. wet (except molasses and oil) ..... $1 50 per barrel.
On brls. dry (except lime) ... 80 cts. per barrel.
On iron in pigs or bars, castings for mills, and unboxed machinery ..... 40 cts. per hundred
On hhds. and pipes of liquor, not over 120 gallons ..... $5 00 per hhd.
On molasses and oil ..... $6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE,
y40 Gen'l. Sup't. Transportation.

PHILADELPHIA, WILMINGTON & BALTIMORE RAILROAD.—1848.

SUMMER ARRANGEMENT.

United States Mail Lines between Philadelphia and Baltimore. Fare, $3.

On and after Monday, April 3d, the Mail Lines between Philadelphia and Baltimore will run as follows, viz:

MORNING LINE.

Per Philadelphia, Wilmington and Baltimore Railroad, via Chester, Wilmington, Newark, Elkton, Havre de Grace, etc., will leave Philadelphia, from Depot, 11th and Market streets, daily (except Sunday) at 8½ A.M., and Baltimore from Depot, Pratt street, at 9 o'clock, A.M.

A Second Class Car will be run with the morning line. Fare, $2.

Tickets must positively be procured at the Office for this car, as none will be sold by the conductors.

AFTERNOON LINE.

Via Newcastle and Frenchtown, will leave Philadelphia, from Dock Street Wharf, per Steamboat Robert Morris, daily (except Sunday) at 2½ P.M., and Baltimore, from Bowly's Wharf, at 2½ P.M.—

☞ Supper provided on board the boat. ☜

NIGHT LINE.

Per Philadelphia, Wilmington and Baltimore Railroad, will leave Philadelphia, from depot, 11th and Market streets, daily, at 11 P.M., and Baltimore at 8 P.M.

WHEELING AND PITTSBURG.

Tickets through to Wheeling or Pittsburg, can be procured at the depot, or on board of the steamboat. Fare to Wheeling, $13. Fare to Pittsburg, $12.

The trains leave Baltimore for the west at 7 A.M. and 4 P.M.

SUNDAY MAIL LINE.

The only line for Baltimore on Sunday leaves the depot, 11th and Market streets, at 10 P.M.

Passengers for these lines must procure their Tickets at the office before taking their seats in the cars.

NOTICE.—All Baggage by these lines is at its owner's risk, and passengers are expressly prohibited taking anything as baggage, except their wearing apparel. 50 lbs. baggage allowed each passenger.

WILMINGTON ACCOMMODATION TRAINS.

On and after Monday, April 3d, the Accommodation Trains, stopping at all the intermndiate places between Philadelphia and Wilmington, will leave as follows, viz:

Leave Philadelphia, from depot 11th and Market streets, daily (Sundays excepted) at 1½ and 4 P. M.

Leave Wilmington, from the depot, Water street, daily (except Sunday) at 7½ A.M. and 4½ P.M.

The Freight Accommodation Train will leave Philadelphia at 7 P.M. and Wilmington at 7 P.M.

The Mail Trains stopping at Chester and Wilminton, leave Philadelphia at 8½ A.M. and 10 P.M. Wilmington at 1 o'clock, P.M., and 12 midnight. Fare to Wilmington, 50 cts. Fare to Chester, 25 cts.

G. H. HUDDELL, *Agent.*

March 23, 1848. 1y15

BOSTON AND PROVIDENCE RAILroad. On and after Monday, October 2d, the Trains will run as follows:

Steamboat Train—Leaves Boston at 5 p.m.—Leaves Providence, on the arrival of the train from Stonington.

Accommodation Trains—Leave Boston at 8 a.m. and 3½ p.m. Leave Providence at 8½ a.m. and 3½ p.m.

Dedham Trains—Leave Boston at 9 a.m., 12 m., 3, 6, and 10½ p.m. Leave Dedham at 7½ 10½ a.m., 1½, 4½, and 9 p.m.

Stoughton Trains—Leave Boston at 11½ a.m. and 4½ p.m. Leave Stoughton at 8½ a.m. and 2½ p.m.

Freight Trains—Leave Boston at 11 a.m. and 6 p.m. Leave Providence at 4 a.m, and 7 40 a.m.

On and after Wednesday, Nov. 1, the DEDHAM TRAIN will run as follows: Leave Boston at 9 a.m., 12 m., 3, 5½ and 10½ p.m. Leave Dedham at 8 10½, a.m., 1½, 4½ and 9 p.m.

WM. RAYMOND LEE, *Sup't.*

NEW YORK & HARLEM RAILROAD CO.—Summer Arrangement.—On and after Tuesday, June 1st, 1847, the cars will run as follows, until further notice. Up trains will leave the City Hall for—

Yorkville, Harlem and Morrisana at 6, 8 and 11 a.m., 2, 2 30, 5 and 7 p.m.

For Morrisiana, Fordham, Williams' Bridge, Tuckahoe, Hart's Corner and White Plains, 7 and 10 a.m., 4 and 5 30 p.m.

For White Plains, Pleasantville, Newcastle, Mechanicsville and Croton Falls, 7 a.m. and 4 p.m. Freight train at 1 p.m.

Returning to New York, will leave—

Morrisiana and Harlem, 7, 8 20 and 9 a.m., 1, 3, 4 30, 6, 6 28 and 8 p.m.

Fordham, 8 08 and 9 15 a.m., 1 20 and 6 15 p.m.

Williams Bridge, 8 and 9 08 a.m., 1 10, 6 08 p.m.

Tuckahoe, 7 38 and 8 25 a.m., 12 55 and 5 52 p.m.

White Plains, 7 10 and 8 35 a.m., 12 50, 5 35 p.m.

Pleasantville, 8 15 a.m. and 5 15 p.m.

Newcastle, 8 a.m. and 5 p.m.

Mechanicsville, 7 48 a.m. and 4. 48 p.m.

Croton Falls, 7 30 a.m. and 4 30 p.m. Freight train at 10 a.m.

Freight train will leave 32d street for Croton Falls and intermediate places, 4 a.m and City Hall 1 p.m.

Returning, leave Croton Falls 10 a.m. and 9½ p.m.

ON SUNDAYS, the trains will run as follows:

Leave City Hall for Croton Falls, 7 a.m, 4 p.m.

Croton Falls for City Hall, 7 30 a.m., 4 30 p.m.

Leave City Hall for White Plains and intermediate places, 7 and 10 a.m. 4 and 5 30 p.m.

White Plains for City Hall, 7 10 and 8 35 a.m., 12 30 and 5 35 p.m.

Extra trains will be run to Harlem, Fordham and Williams Bridge on Sunday, when the weather is fine.

The trains to and from Croton Falls will not stop on N. York island, except at Broome st. and 32d st.

A car will preceed each train 10 minutes to take up passengers in the city.

Fare from New York to Croton Falls and Somers $1, to Mechanicsville 87½c., to Newcastle 75c., to Pleasantville 62½c. to White Plains 50c. 25tf

BOSTON AND MAINE RAILROAD. Upper Route, to Portland and the East.

Summer Arrangement.

Commencing July 3d, 1848.

Trains leave Boston as follows, viz:

For Portland at 7 A.M. and 2½ P.M.
For Great Falls at 7 a.m., 2½ and 4½ p.m.
For Haverhill at 7 and 11½ a.m., 2½, 4½ and 6 p.m.
For Lawrence, at 7, 9, 11½ a.m., 2½, 4½, 6, 7 p.m.
For Reading 7, 9 & 11½ a.m., 2½, 4½, 6, 7, 8½ & 10 p.m

Trains leave for Boston as follows, viz:

From Portland at 7½ a.m., and 3 p.m.
From Great Falls at 6½ and 9½ a.m., and 4½ p.m.
From Haverhill at 7, 8½ and 11 a.m., 3½ and 6½ p.m.
Lawrence at 6½, 7½, 8½, 11½ a.m., 12½, 3½, 6½, p.m.
Reading at 6, 6½, 7½, 9½, 11½ a.m., 1, 4, 7½, 9, 10 p.m.

MEDFORD BRANCH TRAINS.

From Boston at 6·50, 9½ a.m., 12½ 2½, 5½, 7, 10 p.m.
From Medford at 6·10, 7½, 10½, a.m., 2, 4, 6½, 9½ p.m.

STEAMBOAT TRAINS.

For BANGOR, every Monday, Wednesday and Friday, at 5 p.m.

For HALLOWELL, every Tuesday, Thursday & Saturday, at 7 a.m.

The Depot in Boston is on Havmarket Square.

CHAS. MINOT, *Super't.*

Boston, July 3d, 1848.

PHILADELPHIA AND READING RAILROAD.—Passenger Train Arrangement for

1848.

A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock A. M.

The Train from Philadelphia arrives at Reading at 12 18 M.

The Train from Pottsville arrives at Reading at 10 43 A. M.

Fares.	Miles.	No. 1.	No. 2.
Between Phila. and Pottsville,	92	$3·50 and	$3·00
" " Reading,	58	2·25 and	1·90
" Pottsville "	34	1·40 and	1·20

Five minutes allowed at Reading; and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets. 8tf

BALTIMORE AND SUSQUEHANNA Railroad.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger trains run daily, except Sunday, as follows:

Leaves Baltimore at	9 a.m. and	3½ p.m.
Arrives at	9 a.m. and	6½ p.m.
Leaves York at	5 a.m. and	3 p.m.
Arrives at	12½ p.m. and	8 p.m.
Leaves York for Columbia at	1½ p.m. and	8 a.m.
Leaves Columbia for York at	8 a.m. and	2 p.m.

FARE.

Fare to York	$1 50
" Wrightsville	2 00
" Columbia	2 12½

Way points in proportion.

PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg	$9
Or via Lancaster by railroad	10
Through tickets to Harrisburg or Gettysburg	3

In connection with the afternoon train at 3½ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at 5½ p.m. Returning, leaves Owing's Mills at 7 a.m.

D. C. H. BORDLEY, *Sup't.*

31 1y Ticket Office, 63 North st.

BALTIMORE AND OHIO RAILROAD. MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points $7, and 4 cents per mile for less distances. Fare through to Wheeling $11 and time about 36 hours, to Pittsburgh $10, and time about 32 hours. Through tickets from Philadelphia to Wheeling $13, to Pittsburgh $12 Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M from Washington, connecting daily with the lines North, South and West. at Baltimore, Washington and the Relay house. Fare $1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13y1

NORWICH AND WORCESTER RAILROAD. Summer Arrangement.—1848.

Accommodation Trains daily, (Sundays excepted.)

Leave Norwich, at 6 a. m., 12 m. and 5 p. m.

Leave Worcester, at 6½ and 10 a. m., and 4½ p. m. connecting with the trains of the Boston and Worcester and Providence and Worcester railroads.

New York & Boston Line. Railroad & Steamers. Leave New York and Boston, daily, Sundays excepted, at 5 p.m.—At New York from pier No. 1 N. River.—At Boston from corner Lincoln and Beach streets, opposite United States Hotel. The steamboat train stops only at Framingham, Worcester, Danielsonville and Norwich.

Freight Trains leave Norwich and Worcester daily, Sundays excepted.—From Worcester at 6½ a. m., from Norwich at 7 a.m.

☞ *Fares are Less when paid for Tickets than when paid in the Cars.* ☜

3?1v S. H. P. LEE, *Jn.*, Sup't.

RAILROAD IRON—2500 TONS HEAVY H Rail, now landing, and expected shortly to arrive, for sale on most favorable terms by

DAVIS BROOKS & CO.

July 19th, tf 68 Broad street, New York.

RAILROAD LINE BETWEEN ALBANY AND BUFFALO, N. Y.

1848.—SCHEDULE FOR RUNNING.—1848.

Going west.		1st train.	2d train.	3d train
Leaves	Albany	7½ A.M.	2 P.M.	7 P.M.
Pass	Utica	1 P.M.	7½ P.M.	1½ A.M.
Pass	Syracuse	4½ P.M.	11 P.M.	5 A.M.
Pass	Auburn	6½ P.M.	1 A.M.	7 A.M.
Pass	Rochester.	12½ M.N.	7 A.M.	1 P.M.
Arrives at	Buffalo	5½ A.M.	12 M.	6 P.M.
Going east.		1st train.	2d train.	3d train.
Leaves	Buffalo	7½ A.M.	2 P.M.	7 P.M.
Pass	Rochester.	12½ M.	7 P.M.	12 M.N.
Pass	Auburn	6½ P.M.	1 A.M.	6 A.M.
Pass	Syracuse	8½ P.M.	3½ A.M.	8 A.M,
Pass	Utica	12 M.N.	7 A.M.	11½ A.M.
Arrives at	Albany	5 A.M.	12 M.	4½ P.M.

Adopted February 18, 1848, in convention at Albany. (Copy.) T. Y. Howe, Jn.,

Secretary of the Convention.

SOUTH CAROLINA RAILROAD.—A Passenger Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tuscumbia Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily	$26 50
Fare through from Charleston to Huntsville, Decatur and Tuscumbia	22 00

The South Carolina Railroad Co. engage to receive merchandize consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

f25 JOHN KING, Jr, *Agent.*

CENTRAL AND MACON AND WESTern Railroads, Ga.—These Roads with the Western and Atlantic Railroad of the State of Georgia, form a continuous line from Savannah to Oothcaloga, Ga., of 371 miles, viz:

	Miles.
Savannah to Macon—Central Railroad	190
Macon to Atlanta—Macon and Western	101
Atlanta to Oothcaloga—Western and Atlantic	80

Goods will be carried from Savannah to Atlanta and Oothcaloga, at the following rates, viz:

	To Atlanta.	To Oothcaloga.
On Weight Goods—Sugar, Coffee, Liquor, Bagging, Rope, Butter, Cheese, Tobacco, Leather, Hides, Cotton Yarns, Copper, Tin, Bar & Sheet Iron, Hollow Ware & Castings	$0 50	$0 75
Flour, Rice, Bacon in Casks or boxes, Pork, Beef, Fish, Lard, Tallow, Beeswax, Mill Gearing, Pig Iron and Grind Stones	0 50	0 62½
On Measurement Goods—Boxes of Hats, Bonnets and Furniture, per cubic foot	0 20	0 26
Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs and Confectionary, per cubic foot	0 20 pr. 100 lbs.	35
Crockery, per cubic foot	0 15 " "	35
Molasses and Oil, per hhd., (smaller casks in proportion).	9 00	12 50
Ploughs, (large,) Cultivators, Corn Shellers, and Straw Cutters, each	1 25	1 50
Ploughs, (small,) and Wheelbarrows	0 80	1 05
Salt, per Liverpool Sack	0 70	0 95

Passage—Savannah to Atlanta, $10; Children, under 12 years of age, half price, Savannah to Macon, $7.

☞ Goods consigned to the subscriber will be forwarded free of Commissions.

☞ Freight may be paid at Savannah, Atlanta or Oothcaloga.

F. WINTER, *Forwarding Agent, C. R. R.*

Savannah, Aug. 15th, 1846. 1y34

NEW YORK ANDERIE RAILROAD LINE. SUMMER ARRANGEMENT. For passengers, twice each way daily, (except Sunday,) leave New York from the foot of Duane St. at 7 o'clock, A. M. and at 4 o'clock, P. M. by steamboat, for Piermont, thence by cars to Ramapo, Monroe, Chester, Goshen, Middletown, Otisville, and the intermediate stations.

The return trains for New York will leave Otisville at 6 30, A. M. and 4 15, P. M.; Middletown at 7 A. M. and 4 40, P. M.; Goshen at 7 22, A. M. and 5 3, P. M.; Chester at 7 35, A. M. and 5 18, P. M.

Fare between New York and Otisville, $1 50; way-fare in proportion.

FOR MILK—Leave Otisville at 5½ o'clock, morning and evening.

FOR FREIGHT—The barges "Samuel Marsh and "Henry Suydam, Jr." will leave New York (from the foot of Duane St.) at 5 o'clock, P. M. daily (except Sundays.)

No freight will be received in New York after 5 o'clock, P. M.

Freight for New York will be taken by the trains eaving Otisville at 10½ o'clock, A. M.; Middletown at 11½, A. M.; Goshen at 12½, P. M.; Chester at 1 o'clock, P. M., etc., etc.

For farther particulars, apply to J. F. CLARKSON, Agent, corner of Duane and West Sts., New York, or to S. S. POST, Superintendent Transportation, Piermont.

24tf H. C. SEYMOUR, Sup't.

LITTLE MIAMI RAILROAD COMPANY. Fall and Winter Arrangement, 1847. On and after Monday, September 20th, until further notice, a Passenger train will run as follows:

Leave Cincinnati daily at 9 A. M., for Milford, Foster's Crossing, Deerfield, Morrow, Fort Ancient, Freeport, Waynesville, Spring Valley, Xenia, Yellow Springs, and Springfield. Returning, will leave Springfield at 4½ a.m. Upward train arrives at Springfield at 2½ p.m. Downward train arrives at Cincinnati at 10½ a.m.

Freight trains will run each way daily.

Messrs. Neil, Moore & Co. are running the following stage lines in connection with the road:

A daily line from Xenia to Columbus and Wheeling, carrying the great Eastern mail.

Daily lines from Springfield to Columbus, Zanesville and Wheeling. Also to Urbana and Bellefontaine.

A line of Hacks runs daily in connection with the train between Deerfield and Lebanon.

Passengers leaving for New York and Boston, arrive at Sandusky city via Urbana, Bellefontaine & the Mad River and Lake Erie railroad, in 27 hours, including several hours' sleep at Bellefontaine. To the same point via Columbus, Delaware, Mansfield and the Mansfield and Sandusky city railroad, is 33 hours. Distance from Cincinnati to Springfield by railroad 84 miles.

From Springfield to Bellefontaine by stage, over a good Summer road	32 "
From Bellefontaine to Sandusky city by railroad	102 "

FARE—From Cincinnati to Lebanon			$1 00
"	"	" Xenia	1 50
"	"	" Springfield	2 00
"	"	" Columbus	4 00
"	"	" Sundusky city	7 00

The Passenger trains runs in connection with Strader & Gorman's line of Mail Packets to Louisville.

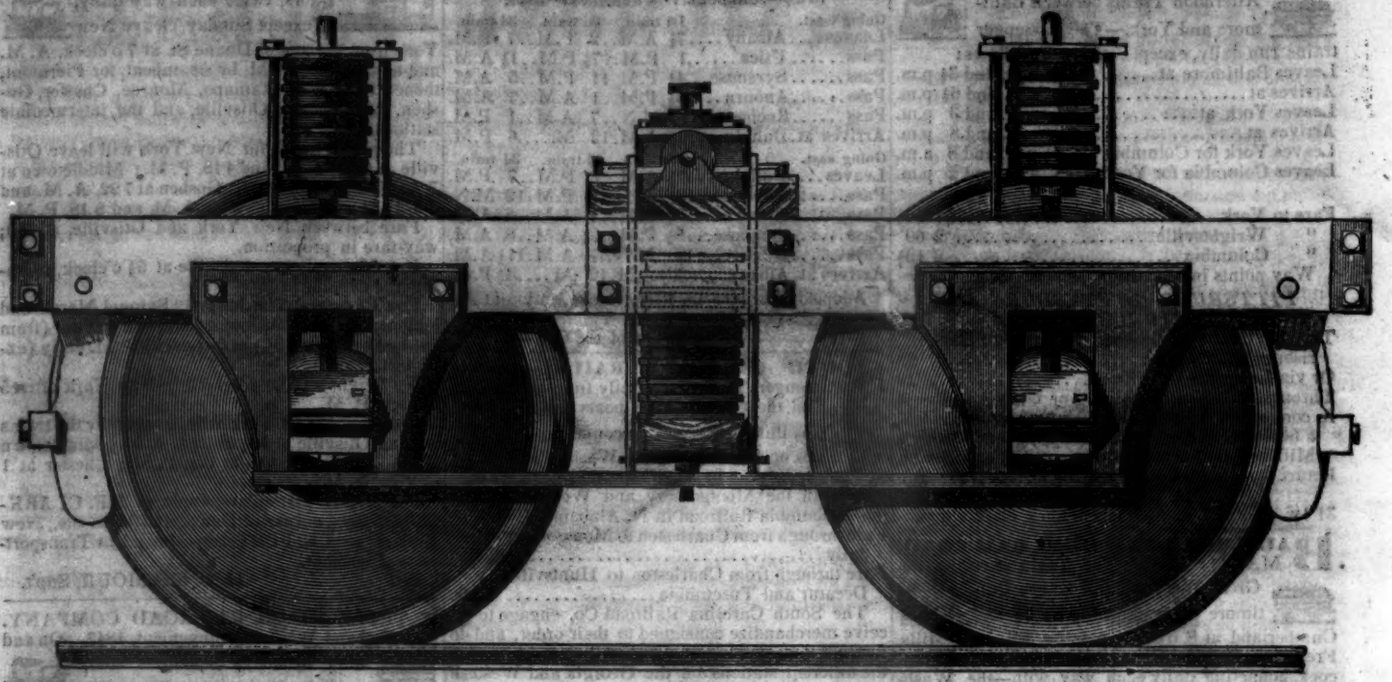
Tickets can be procured at the Broadway Hotel, Dennison House, or at the Depot of the Company, on East Front street.

Further information and through tickets for the Stage lines, may be procured at P. Campbell, Agent on Front street, near Broadway.

The company will not be responsible for baggage beyond 50 dollars in value, unless the same is returned to the conductor or agent, and freight paid at of a passage for every $500 in value over that amount.

17tf W. H. CLEMENT, *Sup't.*

VULCANIZED INDIA RUBBER CAR SPRINGS.



THE NEW ENGLAND CAR COMPANY have introduced these Springs, and they are now in operation on every Railroad terminating in Boston, and several others in New England and the Middle States. Their qualities are well understood, or may be readily ascertained by every person interested to know them. They require no recommendation from the Company. The only known compound of India Rubber good for anything for this purpose is the Vulcanized India Rubber, invented by Charles Goodyear, of New Haven, and the application of it, and the form in which it is used, were invented by F. M. Ray, of New York. The right to manufacture and sell the substance itself for the purpose of Railroad Carriage Springs, as well as the form and application of it, are held exclusively by the New England Car Company. No other company, or individual, has any right to sell or use it for such purpose, or has attempted so to use it in this country.

The New England Car Company guarantee the right to use the article they sell for Railroad Carriage Springs only, against all adverse rights, whether under patents or otherwise: and all persons and corporations are cautioned against a similar use of the article, when purchased of any other parties.

The Springs they sell are all manufactured in a uniform manner, and under the immediate inspection of their own Agent, and have been proved and known to answer the purpose. None have been manufactured in this country or imported from abroad beside their own, which would at all answer the purpose; and if any such should be produced, it cannot be used for Car Springs, while Goodyear's patents, and the rights of the New England Car Company under them, remain in force.

The New England Car Company are now prepared to answer orders for all that may be called for, on reasonable notice, and uniform and equitable terms. They invite the most careful examination, and the severest scrutiny, into the merits of their Springs, wherever they have applied them. And if after such examination, your Company should judge it for their interest to adopt them, the N. E. Car Company would respectfully invite the patronage which they think they deserve, and are confident of receiving at your hands.

EDWARD CRANE, *Agent*,
Office 99 State street.

Orders may also be left with WM. RIDER & BROTHERS, No. 58 Liberty street, New York, or with F. M. RAY, *Agent*,
100 Broadway, N. Y.

The following article, from the pen of Mr HALE, the president of the Boston and Worcester railroad, expresses his opinion of this important improvement, as publisted in the Boston Daily Advertiser of June 7, 1848. He says:

"Of the numerous uses to which the wonderful elasticity and durability of India Rubber renders this material applicable, we are hardly aware of one in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the Newton special train of the Boston and Worcester railroad. It is there used, not only for the springs on which the car rests, but for the springs attached to the draw bar at each end of the car, to prevent any jar on the sudden advancement or interruption of the motion of the car. For both these purposes it appears to be admirably adapted, and we do not learn, that during the period in which it has been used, any defect in it has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think, than any other spring which we have ever seen in use, from every harsh or unpleasant motion, either vertical or horizontal. It is simple in its form and application, extremely light, and little liable to get out of repair. During the period of some months, in which we have seen the springs in operation, there is no apparent wear or diminution of their efficiency."

The above statement of Mr. Hale agrees with my own observation in all particulars.

WM. PARKER, Supt. B. & W. R. R.
June 8, 1848.

I fully concur in the foregoing statement, from practical observation on its use for the last 5 months, on the Boston and Worcester railroad corporation cars.

D. N. PICKERING, Jr.,
Supt. Car Building B. &. W. R. R.
Boston, June 10, 1848.

The New England Car Company have introduced their Vulcanized India Rubber Car Springs on the roads with which we are respectively connected, and we fully concur with Mr. Hale in the above opinion of their character and properties.

DAVENPORT & BRIDGES, Car Builders.
BRADLEY & RICE, Car Builders.
Boston, June, 1848.

LAP-WELDED WROUGHT IRON TUBES for Tubular Boilers, from 1¼ to 15 inches diameter, and any length not exceeding 17 feet—manufactured by the Caledonian Tube Company, Glasgow, and for sale by

IRVING VAN WART,
12 Platt street, New York.
JOB CUTLER, Patentee.

These Tubes are extensively used by the British Government, and by the principal Engineers and Steam Marine and Railway Companies in the Kingdom. 28tf

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AMERICAN RAILROAD JOURNAL.
OFFICE AT 48 SOUTH THIRD STREET,
(Below Chestnut Street,)
PHILADELPHIA, PA.

This is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

TERMS.—Five Dollars a year, *in advance*.

RATES OF ADVERTISING.

One page per annum	$125 00
One column "	50 00
One square "	15 00
One page per month	20 00
One column "	8 00
One square "	2 50
One page, single insertion	8 00
One columnn " "	3 00
One square " "	1 00
Professional notices per annum	5

☞ LETTERS and COMMUNICATIONS for this Journal may be directed to the *Editor*,
D. K. MINOR.